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Feeds and Their Use—Inspection and Analyses

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BULLETIN NO. 249

Feeds and Their Use—Inspection and Analyses

BY J. D. TURNER, H. D. SPEARS AND E. L. JACKSON.*

Hardly a score and half years ago, the food problem for both man and beast was a simple one. It is just as simple today as it was thirty years ago as compared to what it will be tomorrow. The struggle for food increases with the multiplying thousands of consumers and the new problems arising with these changes are varied and perplexing.

The food industry is becoming more and more specialized each year and yet the industry is very young. Human and stock foods are closely interdependent—the source of the one being the source in the main of the other—each being affected vitally by the making and distribution of the other. Without the conservation and utilization in stock feeds, of the various by-products and the unsuitable and rejected materials obtained in the manufacture of human foods, and the reconversion of these materials into human food by feeding them to the animal and the soil, the supply of food for human consumption would not be adequate and the price would be prohibitive. It is equally true that if we did not have the by-products obtained in the manufacture of human food to form the basis of animal rations, the supply of stock feed would be greatly reduced and the value materially lowered and the large class of high-protein by-products practically eliminated.

The commercial aspect of the stock feed industry is just beginning to be realized. The distribution of feed materials has already reached considerable proportions. Even with its

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present status, its zenith is scarcely in sight to the most forward-looking men engaged in the industry. It is undoubtedly true that the feed industry is yet in its infancy.

The beginning of scientific feeding of animals in the United States dates back about fifty years. Since its introduction the study of the science of animal nutrition has steadily grown in interest and increased in importance. This study has had much to do in the introduction of the various classes of feeds. The changing of the methods of manufacture has likewise changed the value of many of the by-products and many experimental data gathered from previous experiments are not altogether applicable to by-products obtained in the present-day manufacture. It should also be borne in mind that experimental data covering the digestibility and nutritive value of many of the most common feeding materials are limited to few trials and are often incomplete. Great as has been the advance in the scientific feeding of animals, most scientists of today agree that much is yet to be learned. The chemical analysis alone is not a true index or measure of the value of a feed. Scientists have determined, for example, that there are several kinds of proteins. Proteins differ both in digestibility and in other important qualities. The same is true of fat and fiber. Consequently, merely to state that a feed contains a given percentage of protein, fat and fiber does not tell the complete story. However, in spite of this fact, the chemical analysis serves a very useful purpose and must suffice for the present and until a better standard is developed. Therefore, the discussions, suggestions and analyses herein given are only helpful if properly studied and valued.

Along with the development of scientific feeding and the scientific preparation of feeds, which undoubtedly accounted for much of the success in the commerce of feeds, came the regulatory laws of the states. In 1895 Connecticut passed the first feed law in this country. Other states soon passed feed laws. These laws were designed to protect the purchaser of feeds and also the honest manufacturer. Massachusetts is

credited with issuing the first bulletin covering the inspection of feeding stuffs.

This and other bulletins of similar nature contained advice to feeders and cautioned them against the use of low-grade and adulterated feeds.

The Kentucky law followed early in the enactment of feed laws by other states. Other bulletins of this Department have discussed at length the results of its operation, questions of interest to both the feeder and manufacturer, and the function of nutrients, and many authors have published works on the nutrition of animals; but it will not be amiss to present here some of the more important things of general interest relating to these subjects. The operation of the law and the benefits resulting from it are so generally understood and recognized that fraudulent practises have been reduced to a minimum. Consequently, few prosecutions are necessary, as compared with previous years, and generally speaking the feeds put on the market in Kentucky are up to the claims of the manufacturers, and the spirit of co-operation between those directly concerned is very good.

The purposes of the law are fourfold: First, to require all feeding stuffs offered for sale in Kentucky to be labeled with an official Kentucky label stating the manufacturer's guaranty; second, to protect the consumer against inferior and adulterated feeds and short weights; third, to protect the honest manufacturer and dealer against dishonest competition; fourth, to promote a more economical and intelligent use of commercial feeding stuffs by feeders, whether used as a prepared ration or as a supplement to the materials produced on the farm.

System of Tagging

In addition to the information printed on the State tag, the Department uses a color scheme of three colors, black, red and yellow. This is done in order to classify the feeds according to their general make-up and help the buyer to recognize by a glance at the tag the general character of the feed. This, in

connection with the information printed on the tag, should serve as guide to the purchaser and give reasonable warning and an opportunity to make whatever investigation he desires before he accepts the feeds.

The color system is: First, a manila tag printed in black ink represents a feeding stuff made of the products or by-products of one grain or plant only, such as wheat, or corn, or cotton seed, etc. For example, wheat shorts, mixed wheat feed, wheat bran, cotton-seed meal or corn feed meal would bear manila tags printed with black ink. Such feeds are commonly known as "straight" feeds.

Second, a manila tag printed in red ink indicates that the feeding stuff is made of the products or by-products of two or more grains or plants, such as corn and wheat, or corn, wheat and cottonseed meal, etc. For example, a combination of corn feed meal, wheat bran, alfalfa meal, molasses and cottonseed meal would take a manila tag printed with red ink.

Third, a yellow tag printed in black ink indicates that a feeding stuff contains a material of little or no feeding value, or a material not classified as a concentrate, such as oat hulls, corn-cob meal, peanut hulls, cottonseed hulls, flax-plant refuse, clipped oat by-product, peat, etc.

The Feeder's Problem

The feeder should constantly bear in mind that the amount, kind and general nature of feed an animal requires, depend entirely upon the use to which the animal is going to put the feed. In studying his animals' needs, the feeder will find that the problem they present is a threefold one.

First, he must furnish a maintenance ration; that is, he must supply sufficient feed to keep the body machinery running.

For instance, a machine or a factory must first be supplied with enough power to put it into motion or action before it can produce or turn out any work. It is also true that the animal mechanism must be provided with sufficient feed to maintain the processes essential to life before it can function

further or before any continued production is possible. In the case of the machine, the power that keeps the machine in motion may be called the maintenance power; in the animal, the quantity of feed required to maintain the processes essential to life is the maintenance ration. It is the amount of feed necessary simply to support the animal when doing no work and yielding no material product.

Second, in addition to a maintenance ration, he must supply his animals with the amounts of feed necessary for the production of meat, milk or work. The production capacity of the animal is the prime factor in the problem. No argument is needed to show that a cow producing thirty pounds of milk a day requires a greater addition to her maintenance ration than does one having a capacity of only fifteen or twenty pounds, or that a steer which can gain three pounds daily needs more additional feed than one capable of making only one pound of gain.

Third, the feeder, like the manufacturer, must be able to adapt his feeding practises to the market conditions. As prices of feeding materials fall and those of animal products rise, he will be inclined to feed more liberally in order that his production may be increased; but he must take into consideration also, that a portion of this increased feed is turned into fat and some may be undigested and wasted so that his returns may not be increased proportionately. A feeder, therefore, in order to meet this situation intelligently, must not only know something about fixed standards in feeding animals, but he must have a knowledge of the amount and kind of feed required under various conditions for the manufacture of a unit of product—a pound of increase in live weight, for example, or a pound of milk of a given quality.

Commercial feeds often are purchased for the purpose of supplementing the feed materials raised on the farm and especially is this true where corn, oats, timothy hay and like materials are the only crops. If alfalfa, cowpeas, soybeans and similar crops can be raised and used on the farm in Kentucky, very little of the concentrates, if any, will be needed, because

these materials are rich in protein and supply sufficient nourishment. When feeding stuffs must be purchased to supplement the materials raised on the farm, in order to get the desired relation between the protein and the energy of the ration, it is evident that often a wide range of materials may be offered from which to choose. In such case the question at once arises, which of the various feeds available is it most economical to purchase, it being evident, of course, that this is not necessarily the one offered at the lowest price. No simple method of determining this point is possible, but comparisons of values of the digestible protein content of such feeds may be safe under most circumstances, as the fats and especially the carbohydrates are produced in abundance in the cereals and legumes which can be raised on the farm. On the other hand, if a feeder's requirements are such that he must buy a general feed, he must take into consideration the digestible content of all the essential constituents.

Points a Feeder Should Consider

No feeder can get the best and most economical results unless he exercises due intelligence in purchasing his feeds. The value of a feed depends upon that portion of the nutrient which an animal can, under ordinary conditions, digest and take into its system for producing growth, keeping up the heat and energy and repairing the natural waste of the body. It may prove of much value to a feeder if he will observe these suggestions:

Ascertain what the animals need and what will supply these needs, as no animal will give good results without proper food.

If in doubt as to what the animals need, consult the Experiment Station or an expert.

Buy no feed that is not properly registered and tagged with an official tag.

Read and study carefully the information given on the official tag.

High-grade feeds are most economical. Many commercial feeds sold in Kentucky are cheap, inferior and unbalanced, and

do not furnish the animal with proper nourishment, thus resulting in hardship to the animal and a loss to the owner as well.

The kind and character of feed an animal requires depend entirely upon the use to which that animal is going to put the food.

The amount of crude protein, fat and fiber will serve only as a general guide in selecting a feeding stuff. The purchaser should base his final conclusion on the amount of digestible nutrients, which can be reasonably estimated from the tables of average analyses of materials and digestible nutrients.

An excessive amount of food not only overtaxes the digestive organs and invites disease but is an actual waste, as well. On the other hand, an insufficient amount causes loss for want of necessary nutrition and diminishes the ability of the animal for performing the desired amount of work. Unless the food is properly balanced one set of tissues of the body may not receive sufficient nourishment, thus causing loss by destroying the equilibrium of the nutrients demanded by the animal system for its proper maintenance and growth.

Points a Manufacturer Should Consider

Registration—All concentrated commercial feeding stuffs must be registered with the Experiment Station and have the State official tag attached before they can be legally sold or offered for sale within the State.

*Concentrated Commercial Feeding Stuff*s—This term, in the Kentucky law, covers practically all materials used as feeding materials except whole hays, straws, cottonseed hulls, corn stover, and whole seeds and grains when unmixed with other materials.

Brand—Every distinctive brand must bear a State official tag showing the manufacturer's guaranty, as provided in the law.

State Official Tag—The State official tag contains the only legal guaranty recognized in Kentucky, and any guaranties on private labels or containers are not considered within the provisions of the law.

Alteration of Labels—No alteration, either by additions or erasures, of the State official label, is permissible under the law, and any alteration made is in violation of the law.

Change in Guaranty—Registrations are received as permanent and no change will be accepted without a new registration or written authorization to make the change, and if the change made materially lowers the value of the feed, the name of the feed must also be changed. At times the Department may ask for new registrations in order to facilitate matters in the office, but due notice will be given.

Manufacturers' Guaranties—All feeding stuffs must equal or exceed the guaranties made by the manufacturers. An excess of one ingredient will not compensate for a deficiency in another, nor will the combined amount of the analyst's finding of crude protein and fat be accepted for the combined crude protein and fat of the guaranties made by the manufacturer.

Attachment of Label—The State official label must be attached to each and every package of feed. Do not make shipments into the State or make deliveries within the State without properly attaching labels, as you will subject your customers to violations of the law unintentionally.

Points That Dealers and Distributors Should Consider

Study the Law—Be sure you are familiar with the requirements of the law, rules and regulations governing the sales of feeding stuffs. If you are not, consult the Department and secure copies of the law and regulations.

From Whom to Buy—Buy only from reputable concerns—concerns that have good records and are complying with the law, and will assist you in complying with the law.

Selection of Feeds—Have definitely in mind the kind of feeds you wish to purchase for your trade and accept no shipments

that are not properly labeled with the State official label. In making your contract for feeding stuffs, do so on the official guaranty and when the shipment is received examine labels closely to see whether they are in accord with the guaranty, before accepting the feed. If the labeling is not in accord with the guaranty, it would be better to refuse to accept the shipment until the matter is adjusted in accordance with the contract.

Assistance by the Department—In case of any irregularity in shipments made by manufacturers to dealers or agents, in misbranding, non-labeling, short weights, or other infraction of the law, if the Department is notified it will act immediately on the merits of the case.

Freight Bills and Invoices—It is sometimes necessary to be able to trace shipments and especially is it necessary on interstate shipments in our co-operative work with the United States Department of Agriculture when the goods are found not up to guaranty. Therefore, all freight bills and invoices on shipments of feeding stuffs should be retained by the purchasers.

Rebates—The paying of a rebate for deficiencies does not release a manufacturer or dealer from prosecution for a violation. It does show in many cases good faith and intention on their part. If rebate is made, such rebate should go directly to the actual purchaser or feeder, on an equitable basis. Record of the transaction should be filed with the Department immediately. The Department will, upon request, gladly assist in making settlements of refunds between manufacturer and purchaser when this is clearly within its jurisdiction.

Labeling—It is the practise of some manufacturers to place labels in the car with shipment of feeds, without attaching labels to the bags, which often results in confusion or a failure to label at all. In some cases the labels were not put in the car or were misplaced or lost. The labels should be attached when a car is loaded and certainly not later than when the feed is taken from the car.

The Components of Feeding Stuffs and How These Substances Are Grouped by the Chemist

All food, with the exception of air, water and salt, is produced either directly or indirectly, by plants. Plants are composed of many substances, both simple and complex. During growth comparatively simple substances nourish the plant and serve to build up other substances, many of which are very complex in chemical structure. It is enough here to name and describe the principal classes of substances of food value and to give some idea how the chemist groups these chemical compounds. Besides water, which is a single chemical compound, these groups are protein, carbohydrates, fats and oils, and mineral matter.

Water is composed of hydrogen and oxygen. The amount of water in a commercial feeding stuff depends upon the character of the materials of which the feed is made, their age or state of greenness, the process of manufacture and the atmospheric conditions of the place in which the feeding stuff is stored. In grains and dried or cured fodders, hays, etc., water usually constitutes from 5 to 20 per cent of the weight; in the grasses and other green foods, it may run as high as 90 per cent; in roots, such as turnips, stock beets, carrots, etc., 95 per cent of the weight may be reached. By-product feeds, such as distillers' dried grains, digester tankage, dried blood, corn gluten feed and dried buttermilk, have gone thru a process of drying by artificial heat and their water content usually is small. The percentage of water in molasses feeds is affected by the amount of molasses they contain and the water content of the same.

Altho water is necessary for the existence of animals, its presence in commercial feeding stuffs adds nothing to their value as food for live stock, because the animals receive their supply from other sources. Therefore, any amount of water other than that necessary to keep the feeding stuff in proper condition, reduces the value of the feed by reducing the percentages of the desirable substances. An excessive amount of water lowers the keeping qualities of the feed.

Protein includes a group of substances of which albumin of eggs, casein of milk, fibrin of meat and gelatin of bones are familiar examples. They contain about 16 per cent of the element nitrogen. Protein is the most valuable food material. It produces flesh, muscle, ligaments, glandular secretions, milk, blood, tendons, hair, hoof, hide and is found in all portions of the animal body, including the bones which contain 25 to 30 per cent. Under certain conditions, as in starvation, protein may serve as a source of heat and energy; it may even go, in part, to the formation of fat, thereby taking the place of the other substances, fats and carbohydrates, but no other substance can take the place of protein in the animal economy.

The proteins are very complex chemical compounds. The different kinds differ greatly in their efficiency for promoting growth, repairing tissues and preserving the health of animals. The proteins of green plants and hay are more efficient in promoting growth than those of grains. The animal proteins, such as those contained in milk, are particularly efficient in promoting growth. Recent investigations have shown that the action of one protein may supplement the action of another, so that the two together are more efficient than either alone; hence it is generally well to include more than one source of protein in a feed or ration. The presence of some animal protein is especially effective in enabling the animal to use the proteins of grains to best advantage. A knowledge of the sources of the proteins in feeds, therefore, is of advantage to the user who is well versed in scientific methods of feeding, as taught in recent treatises on feeding animals.

The percentage of protein in the materials used in feeding stuffs ranges from 2 to 3 per cent in hulls, straw, etc. to 80 or more in dried blood.

Carbohydrates. Sugars and starch together with the related products, the celluloses, pentosans and gums are called carbohydrates. Compounds of this group make up the major portion of all plant substance. The term "carbohydrates" means that these compounds are composed of the three ele-

ments, carbon, hydrogen and oxygen, the latter two being present in the proportion existing in water.

Carbohydrates are valuable as a source of heat and energy. While they do not have as great a power in this respect as fat, they are present in such large quantities in feeding stuffs that they are considered very important food compounds. The members of this group, however, differ in food value on account of the wide variance of their digestibility. The sugars and starches are almost completely digestible whereas pentosans and celluloses, or crude fiber, are digested with much more difficulty and far less completely. It is therefore desirable, in selecting a feeding stuff, that starches and sugars should constitute the greater part of the carbohydrates. Carbohydrates are converted into fats in the animal body and stored as such in the fatty tissues. Along with fats they are burned in the body, thereby giving out heat and energy. The amount of carbohydrates and fats assimilated, in addition to that used immediately by the body for heat and energy, is stored up as fat in the tissues. Whole grains contain the more digestible carbohydrates, whereas hays, straws and hulls of grains contain the less digestible ones. Animal products such as meat meal and fish meal contain very little carbohydrates and when they are used in feeding stuffs the carbohydrates must be supplied by some other source.

Fats and Oils. The proportion of oxygen in these substances is much less, and that of carbon and hydrogen much greater than in the carbohydrates; because of this fact, the fats give off more heat on burning, one pound of fat producing about two and a quarter times as much heat as a pound of carbohydrates. The fats are solid at ordinary temperature, whereas the oils are liquid. Oils and fats abound in the seeds of plants. In general, fats and oils are not present in as large amounts in feeding stuffs as either protein or carbohydrates, and because they do not vary as greatly as do these other substances they are not given as much importance in selecting a feeding stuff as is given either protein or carbohydrates. The percentage of crude fat in feeding stuffs ranges from about 1 to about

15 per cent. Fat, besides producing heat and energy, also serves as a protection to the protein compounds of the body against destruction and as a protection for the other tissues.

Mineral Matter or Ash. Some of the important mineral constituents found in plants are compounds of sulfur, phosphorus, potassium, calcium, magnesium, manganese and iron. They are used in the formation of protein and other complex plant compounds. In the animal these mineral substances form the bony structure and are found in the various tissues and secretions of the body. As in the case of fats, there is not so great a variance in the mineral matter in the different feeding materials and for this reason mineral matter is not given as much prominence in selecting a desirable feed; yet it, like fat, is just as important as is either protein or carbohydrates.

When a feeding stuff is burned, most of the mineral matter it contains is left as ashes.

Fiber. As stated in the preceding pages, some carbohydrates have a very low food value. Therefore, in order to get a somewhat clearer idea as to the character of the carbohydrates present, it is customary to divide them by analysis into two groups, *crude fiber* and *nitrogen-free extract*. The chemist determines in a more or less rough manner the cellulose present and calls it crude fiber.

As already explained cellulose, or crude fiber, is one of the less digestible carbohydrates and hence, if a large part of the carbohydrates in a feeding stuff is made up of crude fiber, the feeding stuff is of not as much value as one in which the carbohydrates include only a small amount of crude fiber. Besides, as a general rule, a feeding material having a high fiber content is very low in both protein and fat; hence a knowledge of the proportion of fiber gives a better idea as to the general nature of the feed. In cereal grains and nuts the amount of fiber is small; but there is a large percentage in stems, stalks, hays, straws, fodders, husks, hulls and cobs.

Nitrogen-free extract. That part of carbohydrates which remains after deducting the crude fiber is what the chemist terms nitrogen-free extract. It contains the easily digestible carbohydrates; therefore, knowledge of the amount present is important. The chemist estimates the percentage of nitrogen-free extract by subtracting from 100 the sum of the percentages of water, ash, protein and fiber found by analysis.

A "*Complete Analysis.*" What is commonly called a complete analysis of a feeding stuff is a statement of the percentages of water, ash, crude protein, fat or ether extract, crude fiber, and nitrogen-free extract. Of course, such an analysis is complete only in the sense that it shows in a practical way how much of each of the important groups of nutrients is present. The Kentucky Feed law requires that official analyses of feeding stuffs be determined by the methods of chemical analysis adopted by the Association of Official Agricultural Chemists.

Microscopical Examination

The chemical analysis and the microscopical examination are supplementary each to the other. The chemical analysis determines the chemical nature of the feed, but the proper interpretation of the analysis is seldom practicable without the aid of the microscopical examination. The microscopical examination identifies the exact constituents or ingredients of the feed. This is possible from the fact that each plant is composed of cells, these cells forming tissues, which are characteristic, for the most part, of that particular species of plant. In a ground feed the various cells and tissues can be seen and identified with the microscope.

A microscopical examination of a feed, then, determines the exact constituents or ingredients and, roughly, their percentages, condition and quality. From this examination we are able to judge: First, whether the feed contains the guaranteed ingredients and the quality of each. Second, whether it contains additional ingredients and whether or not they are adulterants.

Third, whether any of the ingredients are present in such small amounts that their presence does not affect materially the nature of the feed, they being added in very small amounts merely to meet the guaranty in name, but not in fact.

A few examples will illustrate these points. First. A feed is guaranteed to be wheat middlings with an analysis of 16% protein, 4% fat and 7.5% fiber. The microscopical examination showed this middlings to contain wheat bran tissue, and the chemical analysis showed it to contain 15% protein, 3.75% fat and 8.5% fiber. Thus the chemical analysis shows only a deficiency of protein and an excess of fiber, but the microscopical examination makes it possible to properly interpret the results by stating that the wheat middlings contains added wheat bran.

Second. A hog feed guaranteed to contain 23% protein, 5.5% fat and 4.67% fiber, and to be made of reground corn hearts, wheat middlings and digester tankage, was found by chemical analysis to contain 14.13% protein, 5.06% fat and 7% fiber. The microscopical examination showed the feed to be composed of corn bran, corn meal and very little corn hearts. It did not contain any digester tankage or wheat middlings. This finding makes it possible to interpret the chemical analysis as follows: Below guaranty in protein and fat due to the absence of digester tankage and wheat middlings and high in fiber due to the presence of corn bran.

Third. A dairy feed guaranteed to contain 24% protein, 4.5% fat and 14% fiber, and to be made of cottonseed meal, linseed oil meal, alfalfa meal, wheat bran, corn feed meal, hominy meal, kaffir corn meal, molasses and salt 1%, was found by chemical analysis to contain 23.63% protein, 6.7% fat and 13.6% fiber. The microscopical examination showed the presence of rice bran, rice hulls and ground oats, but no linseed oil meal or kaffir corn meal. This illustrates how the chemical analysis may be as guaranteed, but the ingredients not be as guaranteed. The feed contained inferior materials substituted for some of the valuable guaranteed ingredients, and a sufficient amount of cottonseed meal to maintain the percentages.

The Value of Chemical and Microscopical Analysis

A number of factors may influence more or less the nutritive value of feeds. With cereals and other plants, the climate, the season, and the stage of maturity are the most important factors which influence their composition. The composition of a crop is also influenced to a limited extent by the amount of available plant food in the soil on which the crop is grown. The roughages are even more variable than the grains because their composition is more easily influenced by the stage of maturity, the manner of curing and the moisture content. The same is true of the oil mill by-products, and the variation in animal by-products is no less marked, due to different methods of preparation and storing, and to the water content.

Prepared or proprietary feeds are influenced in quality, also, by a number of factors which may be described as man-made, to distinguish them from the natural forces or factors which influence individual crops. Some of these factors are: The use by the manufacturer of inferior or low-grade materials; the substitution in whole or in part of a lower-grade material for a high-grade; the use of an adulterant as a filler; the use of molasses to cover up low-grade, trashy materials; storing the feed in a place which influences the water content, etc.

An ample number of analyses of straight feeds or standard by-products are available, the averages of which give the feeder reasonably accurate knowledge of compositions of the feeds under consideration. In purchasing proprietary or mixed feeds, however, the feeder must use greater caution, because these differ greatly in composition, so that the averages of analyses at hand do not afford a safe guide. Yet these feeds are sold in large quantities everywhere in the State, most of them under standard brands and guaranteed by reputable manufacturers. It is possible, therefore, for the feeder to select high-grade feeds if he uses the guaranteed analysis and scrutinizes the list of ingredients intelligently in making his purchases.

A knowledge of the chemical analysis and general character of either the straight by-products and cereals or mixtures of

these materials is essential to the intelligent feeder. Without such knowledge, the feeder can neither buy his feeds nor make up his rations intelligently. A knowledge of the amounts of crude protein and fiber a feed contains serves as an index. A high percentage of fiber in a feed is a general indication that the percentages of the essential nutrients in that feed are correspondingly low and their digestibility impaired by the presence of excess fiber. Much fiber is not always objectionable with ruminants; in fact, roughages are essential for them, but with animals having small stomachs, much inert material in the feed is undesirable. If fillers, such as hulls, sweepings, dust, refuse, screenings, etc., are used in feeding stuffs, the feeder usually pays about the same price for the filler or fiber as he does for the actual food in first-class materials and he suffers a financial loss, while his animals suffer for the lack of sufficient nourishment.

The amount of nitrogen-free extract may serve as a further index of the character of the feed, since a high nitrogen-free extract indicates a better grade of feed. In analyses of materials or combinations of materials where the amount of nitrogen-free extract is not given, this may be computed by adding together the amounts of protein, fat, fiber, water and ash and subtracting this total from 100. In case the amounts of water and ash are not given and cannot be gotten from the tables of analyses, the average percentages of water and ash in similar materials or their combinations may be used as a basis for calculation, tho the proportions of water and ash vary considerably. The average percentage of water may be taken as 10, the percentage of ash in whole grains, 2.5, and in their by-products, 4.50. For example, the approximate percentage of nitrogen-free extract in a mixed feed composed of corn feed meal, wheat bran, wheat shorts, cottonseed meal and alfalfa meal, with an analysis given as 16.5 per cent protein, 4.50 per cent fat and 12.5 per cent fiber, can be obtained as follows: Taking 10 per cent as the average moisture and 4.5 per cent as the average ash, add together 16.5, 4.5, 12.5, 10.0 and 4.5, giving 48.0; subtract this

from 100 and we have 52 per cent as the amount of nitrogen-free extract.

Likewise, the nitrogen-free extract can be computed from other formulas where part of the figures can be obtained from the guaranty on the label and the average figures taken on standard materials. These results are not accurate, but will help in forming a judgment as to the character of the feed.

In addition to the ordinary chemical analysis of feeding stuffs, special determinations sometimes must be made. For example, in molasses feeds, it is often necessary to know the sugar and moisture contents. In feeding materials such as silage, it is desirable to know the acidity, since this determination is an index as to the palatability of the material. In animal materials, the amount of phosphate is determined in order to ascertain whether the material should be classified as a meat material or a meat and bone mixture. In feeds containing screenings, sweepings, dust and refuse from mills and elevators, it is very desirable to determine the proportion of sand.

Besides obtaining the chemical components of feed materials, the chemical analysis aids in determining whether a feed is misbranded or adulterated. A feed chemist, with many chemical procedures at his command and aided by his long experience and familiarity with the chemistry of feed materials, can determine fairly accurately from chemical determinations alone the general character of the feed materials under consideration. However, the chemical analysis is not and should not be considered final in determining the character of feeding stuffs. In addition to the chemical analysis, it is not only important but very necessary that a microscopical examination be made, as the microscopical examination identifies the exact constituents or ingredients of feeds and determines fairly accurately their percentages, as explained in a preceding page under the head of *Microscopical Examination*. The chemical and microscopical examinations are therefore supplementary to each other and it is very evident from the foregoing discussion that a knowledge of each of these analyses is very necessary to intelligent preparation and use of feed rations.

Nutritive Ratio

Nutritive ratio is a term with which all feeders should be familiar. It is the ratio between the amount of digestible protein and the amount of digestible carbohydrates (or fiber and nitrogen-free extract) and digestible fat (or ether extract) which a given feed contains, based on their energy values. Protein and carbohydrates have the same energy-producing value, but fat has 2.25 times as much as either; hence, in calculating a nutritive ratio, fat must be put on the same energy basis as the carbohydrates, which is done by multiplying the percentage of digestible fat by 2.25.

If we take as an example wheat middlings containing 12.8 per cent of digestible protein 3.9 per cent of digestible fat and 47.5 per cent of digestible carbohydrates, we have, by completing the foregoing arrangement: Carbohydrates, 47.5, plus 8.8 (fat, 3.9 times 2.25) divided by protein, 12.8, or $56.3 \div 12.8 = 4.4$; therefore, the nutritive ration is 1:4.4. In this way the nutritive ratio of any feed in which the digestible nutrients can be obtained, may be calculated.

A feed having a large percentage of digestible crude protein in proportion to the digestible crude carbohydrates and fat combined, is said to have a narrow nutritive ratio; if the reverse, it has a wide nutritive ratio. Examples: cottonseed meal, linseed oil meal, corn gluten meal, wheat shorts, etc., have very narrow nutritive ratios; while the straws, low-grade by-products and materials like corn feed meal, etc., have wide nutritive ratios.

Net Energy Value

Probably the most accurate measure of the feeding value of feeds is the *net energy value*. This represents the amount of energy which the animal can derive from the feed, over and above what is consumed in the work of mastication and digestion and that remaining unused in the feces, urine and combustible gas. It is a measure of that part of the feed which the animal

can use in actual production, such as making growth and fat, producing milk, doing work, etc.

Net energy values are expressed in *therms* per 100 lbs. of feed, a therm being the amount of heat required to raise 100 kilograms of water one degree Centigrade, or approximately 1,000 pounds of water four degrees Fahrenheit. The total energy which a feed is capable of yielding is easily determined by measuring the amount of heat it produces when burned; this does not give us a true measure of the value of the feed, however, because the amounts of energy consumed in the work of preparing the food by chewing and digestion or thrown off in waste products are very different with different kinds of feed. The animal can use a much larger proportion of the total energy of concentrates than of roughages. For example, corn meal and timothy hay yield about the same amounts of total energy from equal weights; about 171 therms and 174 therms, respectively, from 100 pounds, but the deductions to be made for waste, including undigested material, combustible gas arising from fermentations in the digestive tract, unburned substances in the urine and work of mastication and digestion, amount to about 85 therms for 100 pounds of meal and 132 therms for an equal weight of hay. Subtracting these figures from the total energy values, we find that the animal consuming 100 lbs. of corn meal can get from it 86 therms of *net* energy which it can use in work or growth, whereas the consumption of 100 lbs. of hay would have yielded only 42 therms.

The net energy values of many feeds have been determined by the elaborate experiments of Armsby and others. These values, quoted from Armsby's *Animal Nutrition*, have been included in Table III. They are based on experiments with ruminants, but are thought to be fairly accurate for horses and swine. The requirements of animals are sometimes stated in terms of net energy and rations worked out accordingly. More detailed information on this subject can be obtained from Bulletin 459 of the U. S. Department of Agriculture or from recent textbooks on animal nutrition.

Vitamins

Recent investigations in nutrition have proved the importance of certain substances called vitamins, which are contained in some food materials, but not in all. These substances are present in very small quantities in feed-stuffs. At least three kinds, called, "fat soluble A," "water-soluble B" and "vitamin C" have been recognized by their physiological effects. A fourth food factor hitherto unrecognized, has recently been discovered and has been named "vitamin X." These are provisional names given in the absence of definite knowledge as to the chemical composition and relations of the substances. "Fat soluble A," so called because it is soluble in fats or oils, is found in its most concentrated form in butter fat and egg-yolk fat, but not in lard. It occurs in the leafy parts of plants, but not in the vegetable oils, such as cotton seed oil or olive oil. This substance is necessary for growth and maintenance in all animals and its absence leads to a disease known as xerophthalmia, characterized by sore eyes, accompanied by general decline. The other two vitamins are soluble in water but not in fats or oils. "Water-soluble B," also a growth-promoting substance, is found in adequate quantity in many natural food-stuffs, such as milk, eggs, grains, leaves, etc. It prevents the occurrence of a disease known as beri-beri, a disease of the nerves in man. "Vitamin C," also known as the antiscorbutic vitamin, is found in the juice of the orange, the tomato and elsewhere. It prevents or cures scurvy. It is to supply this substance that the use of the orange juice or the tomato, is necessary for infants fed exclusively on pasteurized milk. The presence of adequate quantities of vitamins, A, B and C in the food of animals is essential to their health and growth. It appears that animals must have vitamin X before they can produce young. This occurs in lettuce and alfalfa, egg yolk and fresh meat.

Two other vitamins D have been announced recently but have not been fully accepted as yet.

Mineral Matter

Mineral matter in feeding stuffs is often spoken of as ash. It has been shown that animals fed rations freed from mineral matter, or ash, so far as it is possible, will soon die of mineral starvation. It is found that animals thus fed generally perish sooner than when no food is given. Mineral matter, therefore, is of vital importance to animals. It is necessary in every ration and the common feeding materials contain all the necessary mineral substances, tho they may be in very small amounts. The proportion of these substances in ordinary feeding stuffs varies materially according to the kind of plant, the portion of the plant used—seeds, stems, leaves, roots, etc.—the variety of the plant, and other conditions. In the animal, the presence of mineral matter is most evident in bones. About two-thirds of the dry bone consists of mineral matter or ash. Mineral matter also forms an essential ingredient of the soft tissues. The proportion varies in different organs of the animal, the proportion of mineral matter to dry matter being greater in the lean than in the fatty portions of the body and greater in the young than in the mature animals.

The roughages usually are much richer in mineral substances than the grains. If suitable roughages are not available and the rations are deficient in mineral substances, a mineral substitute may be mixed with the concentrates. Such materials as ground limestone, oyster shells, wood ashes, bone meal, bone black and ground rock phosphate are used to supply the necessary calcium and phosphorous. For an iron substitute iron oxide is sometimes used.

The use of expensive proprietary mineral mixtures is not necessary and generally proves uneconomical.

Essentials of a Balanced Ration

Until recently, the conception of a balanced ration was that it should contain digestible protein, carbohydrates and fat in the right relative amounts, and it was assumed that the consumption

by the animal of a sufficient amount of such a ration would bring about proper nourishment. Recent investigations have shown that the proportion of digestible protein to digestible energy-producing nutrients, or the nutritive ratio, while of fundamental importance, is only one of the essentials to a balanced ration. It can now be said that a ration is properly balanced only when it satisfies the following conditions:

1. Contains the proper amount of energy-producing substances, such as sugars, starches and fats.
2. Affords the proper supply of complete proteins.
3. Supplies the proper quantity of mineral matter.
4. Contains the proper amount of undigestible material as furnished by the fibrous or structural parts of plants.
5. Supplies the vitamins in adequate amount.
6. Is devoid of an appreciable amount of any poisonous substance having a cumulative effect.

Certain experiments conducted at the University of Wisconsin will serve to illustrate some of the recent advances in our knowledge of feeds. Young heifers fed a ration consisting exclusively of wheat and wheat straw grew until they weighed about 1,000 pounds, when their weights became stationary, followed by a general decline, roughened coats, blindness and failure to reproduce. Cows fed on a wheat ration remained in an apparently good state of health but their calves were often prematurely born and always in a poor state of health. Where the ration consisted entirely of corn products, including all parts of the plant, normal growth, maintenance and reproduction followed. Where the ration consisted solely of oat products, abnormal reproduction resulted. The wheat ration and the oat ration were deficient in mineral matter but, besides this, the wheat ration contained a poisonous substance which is cumulative in its action. The deficiency of mineral matter may be supplied by the addition of the proper salt mixture or by the use of a suitable roughage, such as corn stover or a leguminous hay. The effect of the poisonous substance was overcome, to a certain extent, by substituting corn stover for part of the wheat straw, and to a greater degree by the use of any leguminous hay.

Experiments of this kind show the serious consequences which may result from improper feeding. It is quite possible that some of the premature births of animals on the farm, attributed to contagious abortion, may have resulted from improper feeding. It is most important that corn stover, corn silage, or one of the leguminous hays form part of the ration of any herbivorous animal, because these materials contain all the substances necessary to round out a balanced diet, when fed in connection with the ordinary grains.

Average Composition of Feeding Stuffs

Table I comprises the average analyses of materials usually found in commercial feeds. The data are derived, as far as possible, from analyses made in the laboratories in this Station, supplemented by the published results of other laboratories.

Table II contains analyses of miscellaneous seeds and materials used at times in feed rations.

Table III contains analyses of materials used as fillers or adulterants, such as hulls, screenings, sweepings and waste by-products.

Materials like charcoal, grit, salt, peat, calcium carbonate and oyster shells are not listed in the tables because they do not supply any organic nutrients.

Table IV gives the average digestibility of the nutrients in common feeding stuffs, taken from "Feeds and Feeding" by Henry and Morrison.

Table V gives the average percentage of digestible nutrients contained in the common feeding stuffs, the nutritive ratio and the net energy value of each. The figures for digestible nutrients are derived in part by computation from our own analyses, using the coefficients of digestibility given in Henry and Morrison's tables, part are quoted from that work, and the net energy values are copied from tables in "The Nutrition of Farm Animals" by H. P. Armsby, 1917.

TABLE I.—AVERAGE COMPOSITION OF FEEDING STUFFS

	POUNDS IN 100					
	Water	Ash	Pro- tein	Fat	Carbohydrates	
					Fiber	N. F. Extract
Alfalfa meal	8.0	7.0	14.0	1.5	30.0	39.5
Barley meal	10.5	2.7	11.5	1.8	4.8	68.7
Barley feed	8.4	4.3	10.0	2.5	16.4	58.4
Blood, dried	9.4	3.3	82.0	1.5	.....	3.8
Brewers' dried grains	8.7	3.7	28.5	6.7	13.5	38.9
Buckwheat	13.4	2.3	10.8	2.4	11.5	59.6
Buckwheat mixed feed ..	11.6	3.9	16.5	4.5	20.5	43.0
Buckwheat middlings	12.0	4.8	28.0	7.5	6.5	41.7
Buttermilk, dried	11.0	6.6	34.0	1.0	.....	47.4
Cane seed	10.9	1.9	9.5	3.4	3.5	70.8
Cocoanut meal	9.0	5.8	20.5	9.0	9.1	48.2
Corn	12.0	1.5	9.5	4.3	2.0	71.7
Corn bran	10.4	2.4	10.0	5.5	10.5	61.2
Corn and cob meal	10.5	1.5	8.0	3.7	7.9	68.4
Corn chop	12.3	1.5	9.0	4.4	2.3	70.5
Corn feed meal	11.7	1.6	9.0	4.0	2.0	71.7
Corn germ oil meal	8.5	2.7	22.5	10.5	7.5	48.3
Corn gluten feed	9.2	2.0	25.0	3.5	7.3	53.0
Corn gluten meal	9.0	1.5	35.5	4.0	2.0	48.0
Cottonseed meal 41%	7.5	6.2	41.0	7.0	10.0	28.3
Cottonseed meal 38½% ..	7.5	6.4	38.5	7.0	12.0	28.6
Cottonseed feed 36%	7.5	6.6	36.0	6.5	14.0	29.4
Cottonseed feed 22%	8.3	6.0	22.0	7.3	22.0	34.4
Cottonseed hulls	9.5	2.7	4.6	1.8	44.4	37.0
Cowpeas	12.0	3.4	23.0	1.5	4.1	56.0
Flaxseed	8.5	4.4	22.6	33.7	7.1	23.7
Hominy meal, feed or chop	9.6	2.5	10.5	7.5	6.5	63.4
Kaffir corn	11.5	1.7	11.0	2.5	2.5	70.8
Linseed meal (old process) .	9.0	5.5	34.0	7.5	7.3	36.7
Linseed meal (new process)	9.0	5.5	36.0	3.0	8.9	37.6
Malt sprouts	9.0	6.0	27.3	5.3	11.6	40.8
Meat scrap	8.0	6.5	52.5	7.5	2.6	22.9
Meat and Bone meal	7.0	35.4	45.0	8.5	.....	4.1
Millet	8.5	3.5	10.5	5.0	7.5	65.5
Milo maize	9.5	2.8	10.8	2.8	2.7	71.4
Molasses (beet)	25.5	5.5	3.4	.....	.....	65.6
Molasses (cane)	25.8	6.4	3.0	.....	.....	64.8
Oats	10.4	3.4	11.5	4.4	11.0	59.3
Oat kernels	6.7	2.3	14.5	7.5	1.5	67.5
Oat shorts and hulls (85%)	7.5	5.0	6.0	2.1	26.5	52.9
Peanut oil meal (41%) ...	10.3	4.6	41.0	7.5	4.5	22.1
Peanut oil meal (38½%) .	10.4	4.7	38.5	7.8	10.1	26.4
Peanut oil feed	8.5	4.4	30.0	6.0	22.0	29.1
Rice bran	10.0	9.5	12.0	10.0	12.0	47.5
Rice polish	10.8	4.8	11.9	9.0	2.0	62.5

TABLE I.—AVERAGE COMPOSITION OF FEEDING STUFFS
(Continued)

	POUNDS IN 100					
	Water	Ash	Pro- tein	Fat	Carbohydrates	
					Fiber	N. F. Extract
Rye	9.5	2.0	11.3	1.5	2.1	73.6
Rye mixed feed	10.5	3.8	15.0	4.7	3.0	63.0
Rye middlings	11.0	3.7	15.7	3.5	4.7	62.4
Soybean meal.....	9.7	5.3	43.5	5.8	5.3	26.4
Sunflower seed	8.6	3.4	16.3	24.0	25.0	22.7
Tankage (digester 60%)..	7.0	14.5	60.0	7.5	3.5	7.5
Tankage (50%)	9.0	18.0	50.0	9.5	5.0	8.5
Velvet-bean feed	10.0	4.0	17.5	4.5	17.0	47.0
Wheat	10.5	1.8	11.9	2.0	2.3	71.5
Wheat bran	10.3	6.0	15.0	4.0	9.0	55.7
Wheat middlings or shorts	10.7	4.4	16.5	4.5	6.0	57.9
Wheat mixed feed	9.8	5.4	16.0	4.5	7.5	56.8
Wheat red dog	11.0	2.2	17.5	4.4	2.7	62.2
Wheat screenings	11.9	4.0	12.4	3.2	6.1	62.4
HAYS						
Alfalfa hay	8.6	8.6	14.5	2.0	30.0	38.0
Clover hay (red)	12.9	7.1	12.5	3.0	25.5	38.5
Soybean hay	8.6	8.6	16.0	2.8	24.9	39.1
Timothy hay	11.6	4.9	6.2	2.5	30.0	45.0

TABLE II.—COMPOSITION OF MISCELLANEOUS SEEDS AND MATERIALS

	Protein %	Fat %	Fiber %
Beech nuts	15.04	30.64	14.94
Beech nut hulls	2.51	0.40	32.63
Beech nut kernels	23.50	51.05	3.00
Bluegrass chaff	7.75	5.73	27.43
Buckwheat middlings	17.13	4.28	.....
Butter beans	20.69	1.92	4.53
Cheat	10.41	2.23	7.42
Corn flour	8.63	2.35	0.72
Cracklings	39.50	45.34	0.41
Cushaw seed	30.18	28.87	22.61
Cushaw seed hulls	20.64	0.95	60.92
Cushaw seed kernels	35.25	43.71	2.35
Ensilage—corn—heavy	5.27	2.44	8.98
Ensilage—corn—light	2.66	1.30	8.39
Field beans	22.75	1.35	8.43
Flour, graham	12.38	2.02	2.04
Flour, pancake	10.38	1.27	0.63
Lady peas	27.25	2.73	5.38
Morning glory seed	18.45	9.25	11.43
Rye middlings	15.62	4.03	.....
Sorghum stalk meal (bagasse)	3.88	1.50	35.00
Soybean straw	4.00	1.13	.....
Sweet clover seed	36.13	4.96	10.79
Tomato pulp	2.70	1.17	6.33
Weed seed (miscellaneous)	13.75	7.13	15.48
Wild hemp seed	32.00	3.70	13.22
Yeast grains	16.69	6.60	18.90

TABLE III.—AVERAGE COMPOSITION OF MATERIALS USED AS FILLERS

	POUNDS IN 100					
	Water	Ash	Protein	Fat	Carbohydrates	
					Fiber	Nitrogen-free Extract
Buckwheat hulls	10.4	2.3	4.4	1.2	44.0	37.6
Corn bran	10.3	2.5	9.7	6.0	10.5	61.0
Corn cob meal	10.0	1.5	2.5	0.5	32.0	53.8
Cottonseed hulls	9.5	2.7	4.6	1.8	44.4	37.0
Clipped oat by-product ..	8.7	5.6	6.8	2.3	26.3	50.3
Flax plant by-product ...	8.5	7.5	8.7	7.5	20.5	47.3
Flax screenings	9.3	8.3	9.5	10.6	14.3	48.0
Grain screenings (weed seeds, etc.)	10.6	4.5	13.5	5.9	15.9	49.6
Oat dust	6.8	7.3	12.6	4.2	9.4	59.7
Oat hulls	7.4	6.3	3.7	1.8	29.2	51.6
Peanut hulls	9.3	5.6	4.5	4.8	67.3	12.5
Rice hulls	9.6	16.9	3.3	1.1	35.4	34.0
Sorghum stalk meal (Bagasse)	11.3	2.9	3.8	1.5	35.0	45.5
Wheat chaff	10.0	4.4	4.3	1.4	29.2	48.7
Wheat screenings	10.2	3.9	12.2	4.4	7.7	61.6
Velvet-bean hulls	13.2	6.1	11.6	1.9	24.5	42.7

**TABLE IV.—AVERAGE DIGESTIBILITY OF THE NUTRIENTS IN
COMMON FEEDING STUFFS, TAKEN FROM “FEEDS AND
FEEDING,” BY HENRY AND MORRISON**

(This table is copyrighted and is quoted by permission of the publishers.)

FEEDING STUFF	Crude Protein %	Fat %	Carbohydrates	
			Fiber %	Nitrogen- free Extract %
Alfalfa	71	38	43	72
Barley	78	78	56	92
Barley, ground	88	86	70	93
Beet pulp, dried	52	.....	83	83
Blood, dried	84	.....	.....	.....
Bluegrass, Kentucky	57	52	66	61
Brewers' grains, dried	81	89	49	57
Buckwheat ..	75	100	24	76
Buckwheat bran	47	56	39	56
Buckwheat middlings	87	83	32	86
Clover, alsike	62	43	48	64
Clover, crimson	69	44	47	65
Clover, red	59	57	54	66
Cocoanut meal	90	100	23	87
Corn, ground	74	93	57	94
Corn bran	60	80	71	80
Corn cob	19	50	60	52
Corn-and-cob meal	52	84	45	88
Corn fodder, mature	45	70	63	73
Corn germ meal	73	96	75	78
Corn gluten feed	85	85	76	88
Corn gluten meal	85	93	55	90
Corn stover	37	62	66	59
Cotton seed	68	87	76	50
Cottonseed cake, cold-pressed	81	96	48	72
Cottonseed feed	58	90	45	61
Cottonseed hulls	6	79	47	34
Cottonseed meal, choice and prime.....	84	95	37	75
Distillers' dried grains	73	95	95	81
Flax seed	91	86	60	55
Hominy feed or meal	66	91	76	90
Linseed meal, new process	86	95	73	87
Linseed meal, old process	89	89	57	78
Malt sprouts	77	85	87	80
Meat scrap	93	98	.....	.....
Millet seed	59	80	41	84
Millet seed, ground	71	73	53	92
Molasses, cane	32	.....	.....	90
Oats	78	87	35	81
Oat feed (oat middlings and oat hulls).	75	78	42	46

**TABLE IV.—AVERAGE DIGESTIBILITY OF THE NUTRIENTS IN
COMMON FEEDING STUFFS, TAKEN FROM “FEEDS AND
FEEDING,” BY HENRY AND MORRISON—Continued**

FEEDING STUFF	Crude Protein %	Fat %	Carbohydrates	
			Fiber %	Nitrogen- free Extract %
Oat middlings	80	93	49	85
Peanut cake from hulled nuts	90	90	9	84
Rice, ground	62	91	.....	92
Rice bran	65	77	25	79
Rice hulls	10	67	1	35
Rice polish	67	82	26	91
Rye, ground	84	64	.....	92
Rye feed	80	90	.....	88
Skim milk	94	98	.....	98
Soybeans, ground	91	92	75	81
Soybean oil meal	92	68	99	100
Tankage (with swine)	71	100	.....	100
Wheat, ground	74	72	59	93
Wheat bran	78	68	31	72
Wheat mixed feed	77	87	36	76
Wheat middlings or shorts	88	86	36	88
Wheat red dog flour	80	70	60	83
Wheat screenings	72	88	.....	73

TABLE V.—AVERAGE DIGESTIBLE NUTRIENTS OF FEEDING STUFFS

	POUNDS IN 100					
	Protein	Fat	Carbohydrates		Nutritive Ratio	Net energy per 100 lbs. for ruminants. Therms.
			Fiber	Nitrogen-free Extract		
Alfalfa meal	9.9	0.6	12.9	28.4	1: 4.3	34.2
Barley meal	10.1	1.5	3.4	64.0	1: 7.0	89.9
Barley feed	8.5	2.2	4.1	54.3	1: 7.4	.....
Blood, dried	59.0	.....	.....	3.5	1: 0.1	68.1
Brewers' dried grains ..	23.1	5.2	6.7	12.2	1: 1.8	53.4
Buckwheat	8.1	2.5	3.0	45.3	1: 6.6	59.7
Buckwheat feed	9.9	3.1	7.8	31.0	1: 4.6	.....
Buckwheat middlings ..	23.4	6.2	1.9	35.7	1: 2.0	72.2
Cocoanut meal	18.5	9.0	2.0	42.9	1: 3.5	83.5
Corn, ground	7.1	4.0	1.1	70.4	1:10.4	85.5
Corn bran	6.0	4.4	8.1	48.0	1:11.0	.....
Corn-and-cob meal	4.2	3.1	3.7	60.2	1:17.0	75.8
Cracked corn	7.3	3.6	1.0	69.0	1:11.0	89.2
Corn feed meal	7.0	3.7	1.1	67.4	1:11.0	85.2
Corn germ oil meal	16.5	10.1	5.6	37.8	1: 3.9	83.9
Corn gluten feed	21.2	3.0	5.4	46.6	1: 2.8	80.7
Corn gluten meal	30.2	3.7	1.0	43.2	1: 1.7	84.2
Cottonseed meal, choice	34.4	6.7	3.7	21.3	1: 1.2	93.4
Cottonseed meal, prime.	32.3	6.7	4.4	22.5	1: 1.3	90.0
Cottonseed feed, 36%..	30.3	6.2	5.1	22.0	1: 1.4	.....
Cottonseed hulls	0.3	1.6	17.3	16.4	1:13.3	9.9
Cowpeas	18.0	1.1	2.6	51.1	1: 3.2	79.5
Flaxseed	20.6	29.0	4.3	13.0	1: 3.7	83.2
Hominy feed, meal or chops	6.9	6.8	4.8	57.0	1:11.1	88.8
Kaffir corn	5.2	1.3	1.1	35.4	1: 7.6	.....
Linseed meal, old process	30.3	6.7	4.2	28.6	1: 1.6	88.9
Linseed meal, new process	31.0	2.9	6.6	33.8	1: 1.5	85.1
Malt sprouts	21.0	4.5	10.1	31.8	1: 2.5	72.7
Meat scrap	48.8	7.3	.....	.....	1: 0.3	73.0
Millet	6.2	3.2	3.9	53.3	1:10.4	.....
Milo maize	6.3	2.5	2.7	59.0	1:10.7	.....
Molasses, cane	1.1	.....	.....	59.1	1:53.7	55.4
Oats	8.2	3.8	3.9	48.8	1: 7.3	67.6
Oat shorts and hulls (hulls 85%)	5.0	2.0	8.4	29.4	1: 8.5	.....
Peanut oil meal, 41%...	36.9	6.7	0.4	17.5	1: 0.1	93.6
Peanut oil meal 38½%..	34.6	7.1	0.9	22.2	1: 1.1	.....
Peanut oil feed, 30%...	21.0	5.4	2.6	14.6	1: 1.4	42.6
Rice bran	7.8	7.7	2.3	39.0	1: 7.5	45.3

TABLE V.—AVERAGE DIGESTIBLE NUTRIENTS OF FEEDING STUFFS

	POUNDS IN 100					
	Fat Protein	Fat	Carbohydrates		Nutritive Ratio	Net energy per 100 lbs. for ruminants. Therms.
			Fiber	Nitrogen- free Extract		
Rice polish	8.0	7.0	0.5	56.3	1: 9.1	77.7
Rye	9.5	1.3	.....	60.7	1: 7.2	93.7
Rye mixed feed	11.7	4.2	.....	55.9	1: 5.4	.....
Rye middlings	12.6	3.1	.....	55.5	1: 4.5	.....
Soy-bean meal	40.0	4.0	4.9	22.4	1: 0.9	99.7
Sunflower seed	13.5	18.9	6.3	17.8	1: 4.9	92.5
Tankage, digester, 60%.	42.6	9.2	.....	.....	1: 0.4	93.0
Tankage, digester, 50%.	35.5	9.0	.....	.....	1: 0.4	73.0
Velvet-bean feed	14.9	3.8	13.0	34.5	1: 3.8	.....
Wheat	8.8	1.5	1.6	66.5	1: 7.8	91.8
Wheat bran	11.7	2.6	2.5	40.4	1: 4.0	53.0
Wheat middlings and shorts	14.5	3.9	1.8	51.8	1: 4.4	59.1
Wheat mixed feed	12.5	3.9	2.4	45.0	1: 4.2	.....
Wheat red dog	15.4	3.9	0.8	54.6	1: 4.2	75.0
Wheat screenings	8.9	1.9	.....	46.3	1: 6.1	.....
HAYS						
Alfalfa hay	10.3	0.6	12.9	27.4	1: 4.3	34.2
Clover hay (red).....	7.6	1.8	13.8	25.4	1: 5.7	38.7
Soy-bean hay	11.7	1.2	17.0	25.0	1: 3.8	44.0
Timothy hay	3.0	1.3	15.0	27.9	1:15.3	43.0

CHEMICAL STANDARDS IN FORCE IN KENTUCKY

	Minimum Protein %	Minimum Fat %	Maximum Fiber %
Mixed wheat feed	15.50	4.00	8.50
Wheat bran	14.50	3.75	10.00
Wheat middlings }	16.00	4.00	7.50
Wheat shorts }			
White wheat middlings or shorts }	16.50	4.00	5.50
Flour middlings }			
Red dog flour	15.00	3.00	3.50
Corn feed meal	8.00	3.75	5.00
Cracked corn	8.00	3.50	3.00
Alfalfa meal .....		...	32.00
Rye middlings .....		...	6.00
Ground barley .....		...	6.50

OTHER STANDARDS

Screenings

Percentage of screenings required and statement whether ground or unground, except in poultry grains.

Material of Little or No Feeding Value

Percentage of material of little or no feeding value must be stated.

Essential Ingredients

A feeding stuff must not contain less than 3% of any essential food ingredient listed in the guaranty. If an ingredient is so listed and found to be less than 3%, the feed will be construed as being misbranded.

If a material change is made in the guaranty of a feed, in effect lowering the value of the feed, the name of the feed must be changed also.

Grit and Shell

The maximum amount of grit or shell, or both together must not exceed 5%.

Salt

The amount of salt in cattle and horse feeds should not exceed 1% ; in hog feeds $\frac{1}{2}$ to $\frac{3}{4}$ % ; in poultry feeds, none.

Definitions and Descriptions of Feeding Materials

Most of the high-grade materials used in commercial feeding stuffs are the by-products of the grain elevators, flouring mills, sugar, glucose, starch, and oil factories, slaughter houses, breweries and distilleries, the amount from the last two having been recently reduced to an inconsiderable quantity. Another source of materials is the light and immature grain of wheat, barley, oats and other grains and cereals, certain weed seeds, oat by-products such as oat shorts, oat middlings and oat hulls, clipped-oat by-products, flax-plant refuse, etc., which range from low to fair in feeding value and should not be wasted but should be utilized in a legitimate manner, on their own merits. Finally, there is a source of materials which is exploited in the trade under false cover, such as the trash and sweepings of elevators and mills, peanut hulls, corn cobs, cocoa waste, certain weed seeds, and similar materials ranging from worthless to dangerous.

Many of the leading materials are so uniformly made, in the manufacture of other articles of commerce, that they have become standardized and classified and defined to come within certain limits, if made of reasonably good materials. The definitions which follow are given as standards by this Department. The percentage of digestible nutrients used in the discussions are taken from Henry and Morrison's "Feeds and Feeding."

See Table I for average composition of materials.

See Table III for average composition of materials used as fillers or adulterants.

See Table IV for average digestibility of the nutrients in common feeding stuffs.

See Table V for average percentage of digestible nutrients, nutritive ratio and net energy value.

ALFALFA

Alfalfa hay is possibly of wider use than any other roughage. It can be used with all classes of horses, if fed correctly, but better with horses doing slow, steady work. Alfalfa is an excellent feed for fattening cattle and reduces the quantity of concentrates required to produce a given gain. For the dairy cow it makes a very desirable feed, because alfalfa hay is not only rich in crude protein but in mineral matter as well. As a feed for sheep, alfalfa leads the roughages. It can be used to a limited extent in connection with other feeds in fattening hogs and in maintaining stock hogs thru the winter. With a fair understanding of the composition and nature of alfalfa hay, a feeder can use it in feeding all farm animals, with economy and satisfaction.

Fraud is sometimes practised in the preparation of alfalfa meal and alfalfa leaf meal. Alfalfa hay is ground to a certain degree of fineness and then past over screens; the finer parts that are sifted out are sold and used as "alfalfa leaf meal" and the straw or coarser parts are sold and used as "alfalfa meal."

The so-called alfalfa leaf meal is used in hog and poultry feeds, while the coarser meal is used in horse and dairy feeds. The "alfalfa leaf meal" is composed of the alfalfa leaves, the small stems and the finer parts of the main stems, while the coarser part of the so-called "alfalfa meal" is nothing more than alfalfa stems or straw.

Alfalfa Meal is the entire alfalfa hay ground, and does not contain an admixture of ground alfalfa straw or other foreign materials.

In view of the fact that the market price of alfalfa meal is often as high as that of wheat bran, or even of mixed wheat feed, or higher, whereas its feeding value is less, particularly so in feeding dairy cows, its purchase can be recommended only when it sells at an appreciably lower price than these materials. Ordinarily a feeder can produce roughage more economically on his farm than he can purchase alfalfa meal in commercial feeds at prevailing prices.

Three samples were analyzed and exceeded their guaranties in protein but two were above guaranties in fiber. The average analysis of the three samples is 15.4% protein, 1.8% fat and 31.4% fiber.

Alfalfa has an average digestibility of 71% of the protein, 38% of the fat and 43% of the fiber.

ANIMAL PRODUCTS

One of the sources of the more highly concentrated and digestible feeds is the by-products of packing houses. These by-products are sold as blood meal, cracklings, digester tankage, meat scrap or meat meal and meat and bone scrap or meat and bone meal. Some of these products contain more or less bone and are therefore correspondingly rich in calcium and phosphorus. Owing to their very concentrated form and high digestibility and the high prices which they command, the feeder should understand their nature and how to use them in connection with other materials, in order to secure the best results.

In addition to the packing-house by-products a considerable amount of animal products is sold as feed, made from dead animals collected in and around cities and stock yards by rendering plants. The carcasses are cooked in live steam under high pressure from six to ten hours, the fats

pressed out, and the residues dried. The better grade of this material is used for feed and the lower grades are sold for fertilizer. This product compares in feeding value with digester tankage. It is questionable whether any of this material should be utilized as a feed, both from the standpoint of its source and the liability of it becoming contaminated, in its production at the plant, with some disease germ, from which the animal died.

Blood Meal is ground dried blood. This is the richest of the animal by-products, with an average crude protein content of 80%. It is particularly useful as a substitute for skim-milk in feeding young pigs and calves. It is used in some classes of mixed feeds to some extent but is employed largely in the lower grades of digester tankage and meat meals to raise the protein content.

No samples were obtained for analysis.

The average digestibility of blood meal is 72% of the protein.

Cracklings are the residue after partially extracting the fats and oils from the fatty tissue of the animal. If they bear a name descriptive of their kind, composition or origin, they must correspond thereto.

No samples were obtained for analysis.

Digester Tankage is the residue from animal tissue, exclusive of hoof and horn, specially prepared for feeding purposes by tanking under live steam, drying under high heat, and suitable grinding. If it contains more than 10% of phosphoric acid (P_2O_5) it must be designated Digester Meat and Bone Tankage.

Several grades of tankage are being made, ranging from 35% to 60% protein. In some instances the addition of blood is being made to raise the protein content. Good tankage is high in digestible protein, makes an excellent feed for hogs and is good to include in the ration of horses run down.

Sixty-five samples were analyzed, twenty-two of which fell below guaranty in protein, one fell short in fat and three ran above in fiber.

Tankage has an average digestibility of 71% of the protein.

Those firms whose products are reported herein and showed material deficiencies in comparison with their guaranties, are: Buhner Fertilizer Co., Seymour, Ind., No. 72121; Early & Daniel Co., Cincinnati, O., No. 72324; Groves Fertilizer Co., Cincinnati, O., No. 72146; Hopkins Fertilizer Co., New Albany, Ind., No. 71651 and No. 71652; Morris & Co., Chicago, Ill., No. 72378, No. 72943 and No. 72928; Standard By-Products Co., Louisville, Ky., No. 71901 and No. 72105; Swift & Co., Chicago, Ill., No. 72510; United Bi-Products Co., Chicago, Ill., No. 72414, No. 72474, No. 72461, No. 73131 and No. 73167.

Dried Buttermilk averages over 30% protein and 6.5% fat and is used to feed swine and poultry. It ranks very high for this purpose tho its high price makes it uneconomical compared with other high-protein supplements used for this purpose. No samples were obtained for analysis.

Meat Scrap and *Meat Meal* are the ground residue from animal tissues, exclusive of hoof and horn. If they contain more than 10% of phosphoric acid (P_2O_5) they must be designated Meat and Bone Scrap and Meat and Bone Meal. If they bear a name descriptive of their kind, composition or origin they must correspond thereto.

This product varies in amount of protein, ranging from 40 to 60%, the value depending on the amount of protein. Blood meal is often added to meat meal, as in the case of tankage, to increase the protein content. It makes an excellent feed for hogs and poultry. This product is often confused with tankage.

Twelve samples were analyzed, three of which fell short in protein.

The average digestibility of meat scrap is 71% of the protein, and 98% of the fat.

Those firms whose products are reported herein as showing material deficiencies in their guaranties, are: Armour Fertilizer Works, Chicago, Ill., No. 72355; Kentucky Chemical Manufacturing Co., Covington, Ky., No. 72040.

BARLEY PRODUCTS

Barley is one of the most widely cultivated of the cereals and was the chief bread plant of many of the ancient nations, but in recent years has been used almost wholly for brewing, and to a much less extent for stock feeding. The reverse is the case now, especially in sections where corn and oats cannot be raised to an equal degree.

Experiments show that barley has less digestible protein than oats and more than corn; less fat than either, and more carbohydrates than oats, but less than corn. In sections where barley is the prevailing crop, it takes the place of corn and oats as the leading feed. Feeding experiments show corn and oats slightly in favor over barley, tho with barley a good substitute for either.

Barley Meal, or Ground Barley, is the entire grain ground.

Seven samples were analyzed and ran well up to their guaranties.

The average digestibility of barley meal is 88% of the protein, 86% of the fat and 70% of the fiber.

Barley Mixed Feed is the entire by-product from the manufacture of pearl barley or barley flour. It contains the shorts, bran and hulls and averages about 10% of protein, 2.5% fat and 16.5% fiber.

Malt Sprouts are the sprouts of the malted barley grain. If the sprouts are derived from any other malted cereal, the source must be designated. Malt sprouts has a digestibility of 77% of the protein, 85% of the fat and 87% of the fiber.

BEET PRODUCTS

Dried Beet Pulp is a by-product obtained in the manufacture of beet sugar and consists of the dried residue after the extraction of most of the sugar of the beets.

Two samples were analyzed and exceeded their guaranties.

Beet pulp has an average digestibility of 52% of the protein and 83% of the fiber.

BUCKWHEAT PRODUCTS

Buckwheat is rarely used in feeding stock, except in chicken feeds, tho it has a fair feeding value, running somewhat lower in the nutrients than most of the cereals. It has an average composition of 10% protein, 2% fat and 9% fiber.

Buckwheat Shorts or *Buckwheat Middlings* are that portion of the grain immediately inside of the hull, after separation from the flour.

They have an average composition of 28.5% protein, 7% fat and 6% fiber, and make a highly nutritious feed.

Buckwheat middlings or shorts have an average digestibility of 87% of the protein, 83% of the fat and 32% of the fiber.

COCOANUT PRODUCTS

Cocoanut Oil Meal is the ground residue after the extraction of part of the oil from the meat of the cocoanut.

One sample was analyzed and exceeded its guaranty.

Cocoanut oil meal has an average digestibility of 90% of the protein, 100% of the fat and 23% of the fiber.

CORN PRODUCTS

Corn is regarded as the greatest energizing, heat-giving, fat-furnishing food of any of the cereals, for the animal on the farm, and it produces more animal food on a given area, with less expenditure of labor and outlay of money, than any other grain or cereal. Not being rich in protein and mineral matter, it fails to furnish the nutrients in proper proportion to meet the needs in growth. These deficiencies must be supplied by means of other feeds. Corn is rich in starch and oil and produces heat, energy and fat.

Experiments in nutrition have demonstrated that yellow corn is rich in the fat-soluble vitamin while white corn is deficient in it. If the other materials in the ration are deficient in this vitamin, it is evident that yellow corn should be used; but where it is not a question of the fat-soluble vitamin, the relative values of white corn and yellow corn appear to be the same.

Corn has an average digestibility of 74% of the protein, 93% of the fat and 57% of the fiber.

Corn Bran is the outer coating of the corn kernel.

The average analysis of corn bran is 10.5% protein, 6.5% fat and 11.5% fiber. It has no ready sale as a distinct feed on account of its low feeding value and the bulk of its output is used to mix with other materials. However, recent experiments tend to show that corn bran constituting 30% of a mixed ration not derived from corn produces substantially the same amount of milk as wheat bran and the living gains of the animal were about the same. The ash and protein in corn bran are noticeably less than in wheat bran. Digestion experiments with sheep show that 80% of the dry matter is assimilated while only 66% in wheat bran is assimilated. Corn bran has a digestibility of 60% of the protein, 80% of the fat and 71% of the fiber.

Corn Chop is a term commonly applied to cracked or crushed corn, but more generally used to cover that portion of cracked corn after the finer particles have been sifted out and to which corn bran may or may not have been added.

Cracked Corn or *Crushed Corn* is what the term implies—the whole grain cracked or crushed, from which nothing has been taken and to which nothing has been added. Sifted Cracked Corn is the material left after the small particles have been sifted out.

Seven samples were analyzed, one of which fell short of guaranty in fat.

The average digestibility is 76% of the protein, 86% of the fat and 58% of the fiber.

Corn Feed Meal is the by-product obtained in the manufacture of corn chop, with or without aspiration products added to the siftings, and is also the by-product obtained in the manufacture of table meal from the whole grain by the non-degerming process.

Twenty-five samples were analyzed; four were below guaranty in protein, one in fat, and three were above in fiber.

One sample contained ground oat hulls; two, ground screenings, and two were made out of damaged grain.

Corn Feed Meal has an average digestibility of 74% of the protein, 93% of the fat and 57% of the fiber.

Corn Germ Meal is a product obtained in the manufacture of starch, glucose and other corn products. It is the germ layer from which a part of the corn oil has been extracted.

No samples of this product were obtained for analysis.

It has a digestibility of 73% of the protein, 96% of the fat and 75% of the fiber.

Corn Gluten Feed is that portion of corn that remains after the separation of the larger part of the starch and the germ by the process employed in the manufacture of corn starch and glucose. It may or may not contain corn solubles.

One sample was analyzed and exceeded its guaranty.

Corn Gluten Meal is that part of corn that remains after the separation of the larger part of the starch, the germ and bran, by the processes employed in the manufacture of corn starch and glucose. It may or may not contain corn solubles.

No sample was taken.

This product has an average digestibility of 85% of the protein, 85% of the fat and 76% of the fiber.

Grits are the hard, flinty portions of Indian corn, without hulls and germs, broken finer than hominy and free from dust.

No samples of grits were taken.

Hominy Meal, Hominy Feed, or Hominy Chop is a kiln-dried mixture of the mill-run bran coating, the mill-run germ, with or without a partial extraction of the oil, and a part of the starchy portion of the white corn kernel, obtained in the manufacture of hominy, hominy grits and cornmeal by the degerming process. Yellow hominy product is defined in the same way, except that the product is made of yellow corn.

Thirty-seven samples were analyzed; twelve fell short in protein and ten in fat and one ran high in fiber. Six samples were misbranded and one adulterated.

Those firms whose products reported herein did not comply with their guaranties, are: Aubrey & Co., Louisville, Ky., No. 71740, No. 72533; Cincinnati Grain & Hay Co., Covington, Ky., No. 72134, No. 71758; Dixie Mills Co., E. St. Louis, Ill., No. 72186; Early & Daniel Co., Cincinnati, Ohio, No. 72470, No. 73142; Perin-Brouse-Skidmore Grain Co., Cincinnati, Ohio, No. 72709; The Quaker Oats Co., Chicago, Ill., No. 72439.

This product has an average digestibility of 66% of the protein, 91% of the fat and 76% of the fiber.

COTTON-SEED PRODUCTS

Cotton-Seed Meal is a product of the cotton seed only, composed principally of the kernel with such portion of the hull as is necessary in the extraction of the oil and must contain at least 38.62% protein. Any cotton-seed product containing less than this amount is termed cotton-seed feed, and the percentage of hull contained in it must be given.

Cotton-seed meal is regarded as the cheapest source of protein in available form and, thru it, of nitrogen for maintaining the soil. It is one of the most valuable feeds when properly fed. The amounts which can be safely fed to each kind of stock should be carefully studied in the textbooks on feeding. Cotton-seed meal can be fed with safety in small amounts in proper rations to dairy cows, beef cattle, sheep and horses, but if fed injudiciously, may be injurious, or even cause death. Swine are very susceptible to the effects of the poisonous substance contained in cotton-seed meal. If cotton-seed meal forms as much as one-third of the concentrates fed to pigs, in a short time they may become sick and die. Young calves (under six months) are very susceptible. Even small allowances fed to young calves daily usually prove fatal to them. Stock closely confined and heavily fed on cotton-seed meal often are affected, whereas, stock allowed the use of pasture and succulent food are not so susceptible; especially is this true with swine.

Cottonseed meal has an average digestibility of 84% of the protein, 93% of the fat and 37% of the fiber.

Choice Cotton-Seed Meal must be finely ground, not necessarily bolted, perfectly sound and sweet in odor, yellow, free from excess of lint, and must contain at least 41% of protein.

One hundred and seventeen samples of meal guaranteed to be choice meal were analyzed, thirty-eight of which were below guaranty in protein and twenty-three above in fiber. A small number of the meals were adulterated with hulls.

Those firms whose products reported herein showed material deficiencies in comparison with their guaranties, are: F. W. Brode Corporation, Memphis, Tenn., No. 72363, No. 72095, No. 72608, No. 73190; Chas. A. Hill & Co., Nashville, Tenn., No. 72366; Humphrey-Godwin Co., Memphis, Tenn., No. 72988; Lyle & Lyle, Huntsville, Ala., No. 71798; Marianna Cotton Oil Co., Memphis, Tenn., No. 72886, No. 73166; C. L. Montgomery & Co., Memphis, Tenn., No. 72064; Memphis Cottonseed Products Co., Memphis, Tenn., No. 73200; W. C. Nothorn, Memphis, Tenn., No. 73027; Texas Cake & Linter Co., Dallas, Texas, No. 71674.

Prime Cotton-Seed Meal must be finely ground, not necessarily bolted, of sweet odor, reasonably bright in color, yellow, not brown or reddish, free from excess of lint, and must contain at least 38.62% protein.

One sample guaranteed to be prime meal was analyzed and was up to guaranty.

Cotton-Seed Feed is a mixture of cotton-seed meal and hulls and includes any mixtures of less than 38.62% protein, tho the bulk of this material was guaranteed to contain 36% protein.

Twenty-one samples of cotton-seed feeds were analyzed. This product, except in one shipment, was guaranteed to be 36% protein grade. Seven fell short in protein and five ran high in fiber. A number of these samples contained an excessive amount of hulls.

Those firms whose products reported herein showed material deficiencies, are: Ashcraft & Wilkinson Co., Atlanta, Ga., No. 71649, No. 71653; F. W. Brode & Co., Memphis, Tenn., No. 72377.

FLAX PRODUCTS

Flax-Plant By-Product is that portion of the flax plant remaining after the separation of the seed, the bast fiber and a portion of the shives. It consists of flax shives, flax pods, broken and immature flax seed and the cortical tissues of the stem.

This product has very little feeding value and is used largely as an adulterant. No samples were found for analysis.

Unscreened Flax Oil Feed is the residue after extracting a part of the oil from unscreened flax seed. The value is lower than that of linseed meal, depending on the amount of screenings present. Linseed meal is sometimes adulterated by the substitution of screenings meal.

Linseed Meal is the ground residue after extraction of part of the oil from ground flax seed. It is regarded as one of the most healthful feeds for limited use with all farm animals. It is rich in protein, slightly laxative in action, is mucilaginous and has soothing properties. It is also rich in calcium and fairly high in phosphorus. It can be fed to good effect to all kinds of animals. If the price is too high to make it economical as a source of protein, then it should only be fed in sufficient quantity to produce the desired tonic and regulating effect.

Two methods are used in extracting the oil, thus producing two kinds of meals, Old Process and New Process meals. Old Process Meal is the ground product obtained after extraction of part of the oil by crushing, cooking and hydraulic pressure; New Process Meal is the ground product after most of the oil has been extracted by means of solvents; instead of hydraulic pressure. Practically all the linseed meals found on the Kentucky market were the old process meals, with a guaranty of 30 to 34% protein. Nineteen samples were analyzed all of which exceeded their guaranties.

Linseed meal has an average digestibility of 89% of the protein, 89% of the fat and 67% of the fiber.

OAT PRODUCTS

The production of oats in Kentucky is small as compared with some of the other States. Next to corn, oats are the most extensively grown cereal in this country. Oats are safest of all feeds for horses, are excellent for dairy cows and can be fed to advantage to poultry and hogs. They are not good for fattening live stock, but are good for growing animals and breeding swine. Bleaching of low-grade oats and barley with sulfuric acid fumes to whiten the grains and raise the market grade, has become a common practise. Pin-head and wild oats are bleached also and commonly sold as a good grade of oats.

A number of oat by-products are obtained at the oatmeal factories and grain elevators, the value of which depends upon the proportion of the oat grain or kernel to the hull and other waste. Often light-weight oats of low feeding value are mixed with corn and the ground or chopped

product put on the market as corn and oats chop. Large quantities of oat hulls are put out by the oatmeal factories and, as the modern machinery can so completely separate the hulls from the kernel, the chaff-like material that is left has very little feeding value. None of the oat by-products were found in an unmixed state on the Kentucky market, but they were found in mixed feeds, usually molasses feeds, which are manufactured without the State. These products are rarely worth the price paid for them and are mixed with other materials in order to find a market for them.

Eight samples of ground oats were analyzed. Two fell below guaranty in protein and three exceeded guaranty in fiber. Three samples contained wild oats and barley.

Oat Groats are the kernels of the oat berry.

Oat Hulls are the outer chaffy coverings of the oat grains.

Oat Middlings or *Oat Shorts* are the floury portions of the oat groat, obtained in the milling of rolled oats.

Clipped Oat By-Product is the by-product obtained in the manufacture of clipped oats. It may contain light, chaffy material broken from the ends of the hulls, empty hulls, light, immature oat grains and dust.

PEANUT PRODUCTS

Peanut Meal is a product of the hulled peanut and must not contain less than 38.62% protein. Any peanut product containing less than this amount of protein is regarded as peanut feed and the percentage of hulls must be stated. This product contains from 38.5% to 50% protein. It is palatable and has given good results in feeding dairy cows, sheep and pigs. If fed in too large proportions it may produce soft pork.

Peanut meal has an average digestibility of 90% of the protein, 90% of the fat and 9% of the fiber.

Choice Peanut Meal is the ground residue after the extraction of part of the oil from peanut kernels, and must not contain less than 41% protein.

Prime Peanut Meal is the ground residue after the extraction of part of the oil from peanut kernels, and must not contain less than 38.62% protein.

Peanut Feed is a mixture of peanut meal and hulls and varies in amount of protein from 28 to 38.62%. The percentage of hulls must be stated in all peanut feeds sold in Kentucky.

RICE PRODUCTS

The production of rice in this country is limited principally to Louisiana and Texas. The rice grain is rather low in protein and fat, but its by-products have considerable value as a stock feed. The source of these products is too far from the Kentucky market to make them an economical feed for this section, but some shipments have been made the past year. Rice meal, rice polish and rice bran have an average digestibility of 65% of the protein, 77% of the fat and 25% of the fiber.

Rice Bran is the cuticle beneath the hull of the rice grain.

Four samples of rice bran were taken for analysis and equaled their

guaranty in protein and fat and only one exceeded its guaranty in fiber. Two samples contained an excess of hulls.

Rice Hulls are the outer, chaffy coverings of the rice grain. They are tough and woody and are considered dangerous to feed to stock and for this reason are prohibited to be sold as feed in Kentucky.

Rice Polish is the finely powdered material obtained in polishing the kernel. No samples were taken for analysis.

RYE PRODUCTS

Rye is not extensively grown in this country. It has been used heretofore largely for the manufacture of whisky and to some extent as a food for live stock. Animals show no fondness for it, but eat it readily when mixed with other feeds. It is not regarded a good feed to feed alone or in large quantities but, fed in connection with other materials, it gives fair results. Rye feeds are not used extensively in Kentucky and only during seasons of high cost of feeds are they used to an appreciable degree.

Rye Bran is the outer coating of the rye grain, corresponding in character to wheat bran and having about the same food value.

Rye Middlings are the fine particles just beneath the bran coating, corresponding in character to wheat middlings. Seven samples were analyzed and were well up to guaranty.

Rye Mixed Feed is a mixture of the mill-run bran and middlings obtained in milling the rye grain.

SOYBEAN PRODUCTS

The soybean is of high value both as a food and a fertilizer and its production is being greatly increased. At the present time it is grown in this country primarily for forage, but the beans are beginning to be used extensively as a food for man and animals. The bean carries 16 to 20% of oil, and this, when extracted, is used for human food and other purposes, while the resultant by-products, called soy-bean cake and meal, are used for stock food and fertilizer.

Soybean seeds are rich in protein, fat and mineral matter and make a good feed for growing stock. They have an average digestibility of 84% of the protein, 82% of the fat and 81% of the fiber. Owing to their high digestibility they compare favorably with linseed meal and cottonseed meal as a feed for live stock.

Soybean Meal is the ground residue after extraction of part of the oil from the bean. It has an average digestibility of 92% of the protein, 68% of the fat and 99% of the fiber. It may be classed as one of the most valuable protein supplement feeds.

VELVET-BEAN PRODUCTS

The velvet bean is being grown extensively in the South for feeding purposes. It has been tried out in a number of Northern and Eastern States, but it has not proved the success as a feed in Kentucky that was

hoped for it. This has been due, perhaps, to some extent at least, to the lack of knowledge in feeding it, and also to the extravagant claims made for it by those who were interested in it from a commercial standpoint.

Feeding tests made with velvet-bean feed at this Station show it to be a very good substitute for some of the common by-products of the milling industry as a feed for cows, but the prices asked for this product are out of proportion to its real value as a feeding material. As a supplement to corn in the feeding of hogs, velvet-bean feed was found to be a poor material.

Velvet-Bean Feed is the product obtained by grinding the natural run of the bean and pod and contains, on the average, about 40% of the pod. It has an average analysis of 17% protein, 4.5% fat and 16% fiber.

It has a digestibility of 74% of the protein, 78% of the fat and 64% of the fiber.

Velvet-Bean Meal is the ground bean after it has been separated from the pod. It is a much better product than velvet-bean feed, being richer in protein and fat and having a higher digestibility. No velvet-bean meal was found on the Kentucky market. This product should not be confused with velvet-bean feed, which contains about 40% velvet-bean hulls.

WHEAT PRODUCTS

In the extent of the production of the cereals in this country wheat ranks third. As compared with corn, oats, barley and rye, wheat is richer in protein, but less rich than corn and oats in fat and about the same as rye and barley. The average analysis of Kentucky wheats is 12% protein, 2% fat and 2.25% fiber. Wheat has an average digestibility of 74% of the protein, 72% of the fat and 59% of the fiber. Only low-grade wheats are used for feeding live stock, the bulk of sound wheat being used in making food for human consumption.

The by-products from the wheat-milling industry make excellent feeds for stock and form a large part of the legitimate feeds found on the market in Kentucky. These by-products vary a good deal, depending on the number of streams and the process of milling. Millers do not always combine the same streams into the same by-products, as they differ widely in opinion and practise as to what streams should be run together, thus causing wide variance in the by-products obtained in this great industry. These products should be bought only under chemical standards. See Kentucky standards for wheat by-products, page 121.

Wheat Bran is the coarse outer coating of the wheat berry, obtained in the usual commercial milling process from wheat that has been cleaned and scoured.

Wheat Bran is a palatable feed, comparatively rich in digestible protein and fat, light and fluffy, rather high in fiber and rich in mineral matter, except calcium. Bran is lower in total digestible nutrients or in net energy than many of the concentrates but it supplies an abundance of phosphorus, so essential in milk and bones, tho it is lacking in calcium, which is needed in still larger amount. Horses fed heavily on bran sometimes suffer from what is called "bran disease," which seriously affects their bones, but the calcium may be supplied in an inorganic form, such as wood ashes, burned lime, bone meal, etc., or by feeding the plants high in calcium, such as the legumes.

In order to feed bran economically, one must know its properties. It should be mixed with other ingredients to lighten the ration or give bulk, while at the same time improving its nutritive qualities. It has a laxative effect and for this reason cannot be fed extensively to work animals. It is an excellent feed for the dairy cow, furnishing bulk to the ration and providing protein and phosphorus, so vital to the formation of milk. It is a satisfactory feed for feeding breeding sheep and lambs. It is not a good feed for pigs, tho considered valuable in preparing a ration for breeding swine and stock hogs when they cannot get legume pasture or hay.

Thirty-six samples were analyzed, some of which contained screenings and were so registered. Two fell below guaranty in protein, one in fat, and four ran high in fiber. Two samples were adulterated.

Bran has an average analysis of 15% protein, 4% fat and 8.5% fiber, with an average digestibility of 78% of the protein, 68% of the fat and 43% of the fiber.

Middlings, or *Shorts*, are the fine particles of the outer and inner bran, separated from bran and white middlings.

The terms, middlings and shorts, are generally used in the trade as interchangeable terms. The materials vary greatly in quality and should be bought with caution. When of proper quality they make an excellent feed for hogs of all ages. They should be mixed and fed with other materials, as cornmeal, barley meal, ground oats, tankage, etc. When properly mixed with other materials, they form a good combination for the dairy cow, since they are rich in protein and phosphorus. They should not be fed alone to horses, on account of being heavy and pasty and liable to cause colic. Like bran, they are deficient in calcium and this must be supplied by other ingredients which go to make up the ration.

There has appeared on the market in Kentucky a wheat product under the name of "Brown Shorts," "Brown Middlings," or Standard Middlings," which is made of ground wheat bran only or which may at times contain a small amount of shorts or middlings. This product has been rejected for registration in Kentucky under the name of "Brown Shorts," "Brown Middlings," or "Standard Middlings," on the ground that this is a misnomer, and dealers and consumers are warned to refuse shipments of such materials as shorts or middlings. Violations of this nature will be dealt with under the head of adulteration and misbranding.

Two hundred and twenty-five samples of middlings and shorts were analyzed, forty-eight of which fell below guaranty in protein, eleven in fat, and thirty-eight ran above guaranty in fiber. Forty-six were adulterated or contained an excess of ground wheat bran, eight were adulterated with corn bran, forty-one were adulterated with screenings and weed seeds and three with ground oat hulls.

Shorts and middlings have a digestibility of 77% of the protein, 88% of the fat and 30% of the fiber.

Those firms whose products reported herein showed material deficiencies as compared with their guaranties, or were adulterated, are: Allen & Wheeler Co., Troy, Ohio, No. 73120; Arnold-Madaus Milling Co., Sterling, Kan., No. 72388; Ashland Trading Co., Ashland, Ky., No. 71663; Aubrey & Co., Louisville, Ky., No. 72601; Aviston Milling Co., Aviston, Ill., No. 72221, No. 73118; Cincinnati Grain & Hay Co., Cincinnati, Ohio, No. 72859; Diamond Mills, Evansville, Ind., No. 71982, No. 72529, No. 71929; Dunlop Milling Co., Clarksville, Tenn., No. 71693; Edinger & Co., Louisville, Ky., No. 72102, No. 72827, No. 72926; Oscar Farmer & Sons, Louisville, Ky., No. 72099; J. H. Fedders & Sons, Covington, Ky., No. 73143;

Ferger Bros., Cincinnati, Ohio, No. 72625; Edward F. Goeke Co., Evansville, Ind., No. 72649; Gwinn Bros. & Co., Huntington, W. Va., No. 71662, No. 71718, No. 71959, No. 72231; Hubbard Milling Co., Mankato, Minn., No. 71871; Keister Milling Co., Huntington, W. Va., No. 71655, No. 71657, No. 71659, No. 71709; George Keller, Newport, Ky., No. 72868; Kenton Hay & Grain Co., Latonia, Ky., No. 71755, No. 72855; Kentucky Feed & Grain Co., Louisville, Ky., No. 73006; Lambert Milling Co., Kenova, W. Va., No. 72716, No. 73059; Climax Roller Mills, Shelbyville, Ky., No. 72828, No. 72996; National Feed Co., St. Louis, Mo., No. 72787; Nutritia Co., Cincinnati, Ohio., No. 71995; Russell-Miller Milling Co., Minneapolis, Minn., No. 71933; Tell City Flouring Mills, Tell City, Ind., No. 72332, No. 72334.

Mixed Wheat Feed or Shipstuff is a mixture of the products other than the flour obtained from the milling of the wheat berry, combined in the proportions obtained in the usual process of commercial milling. In other words, it is the mill-run mixture of the bran and middlings or shorts, to which red dog flour may or may not have been added.

Mixed wheat feed forms a combination which can be fed to animals of almost every class with safety and good results, for it is rich in digestible protein and fat and contains an abundance of minerals, except calcium; the laxative properties of the bran are reduced by the presence of middlings and shorts; the heavy and pasty nature of the middlings is overcome; the mineral matter found in both is maintained and the digestible protein and fat are kept up to a high standard. For general feeding it is one of the best feeds.

One hundred and eleven samples were analyzed, of which twenty-six fell below in protein, two in fat and fourteen ran above in fiber. Ten samples contained screenings; five, corn bran; four, ground weed seeds; and one, ground oat hulls.

Red Dog Flour is a low-grade wheat flour containing the finer particles of bran. The name "reddog" originated in the early days of the flour-milling industry, before patent flours were as highly developed as they are today. Often the separations were not clear, due to a large percentage of the middlings and shorts and bee-wing bran getting into the final product, thus giving it a reddish color. In order to distinguish this off-colored flour from the clearer flours the mill hands called it "red dog." This name has been handed down with the varying conditions and developments of the flour industry and it is used indiscriminately in the present day to cover any low-grade flour—even low-grade patent flours.

This material is rich in digestible nutrients and has a high feeding value, especially for young pigs, calves and milk cows.

Three samples were taken for analysis and exceeded their guaranties.

MISCELLANEOUS WHEAT FEEDS

Some manufacturers of wheat by-product feeds make grades which cannot be classified under the standard wheat by-products. These feeds do not meet the Kentucky standards for the regular established wheat feeds and therefore cannot be registered under these established names. These feeds vary in composition and chemical analysis and are registered and sold under proprietary names, or names that are not descriptive of the materials. Under such names the manufacturers are not required to make their chemical guaranties of these products harmonize with the

standards given to the various wheat by-products under their established names. This class of feeds as a whole compares very favorably with Mixed Wheat Feed, but a good deal of it is finely ground wheat bran and screenings.

Forty-three samples of feeds of this class were analyzed. Seven fell below guaranty in protein and two exceeded guaranty in fiber. Two samples were adulterated with ground weed seeds, one with corn bran and one with oat hulls.

MISCELLANEOUS

Brewers Dried Grains are the properly dried residue from cereals, obtained in the manufacture of beer or other malt beverages. Due to war restriction and prohibition, the use of this material has been reduced to a minimum.

Four samples were analyzed, one of which fell below guaranty in protein.

Distillers Dried Grains are the dried residue from cereals, obtained in the manufacture of alcohol and distilled liquor.

Garbage, or household and hotel waste, is being collected in cities by specially equipped garbage plants, the material sorted and treated, and the product sold as a garbage tankage for feeding hogs. This material varies in food value but, thru proper sorting, it can be produced in a highly concentrated form. No digestion experiments have been made on garbage, but it is thought by many that the digestibility of this material is low. If the material is not properly cooked, there is danger of poisoning from decayed garbage, and bad results may come, also, from the presence of chemicals used for washing, like lye or soda. Another source of danger from using garbage is from broken glass and china that are found in collected garbage of this nature and, unless this material is carefully sorted out of the waste material, death of animals may result.

Screenings consist of the smaller grains, weed seeds and other foreign materials having feeding value, separated in cleaning the grain.

A farmer takes his grain to market and is paid according to the way it is graded. If it contains weed seeds, chaff and inferior grains, it is docked according to the estimated amount of these materials. The grain is taken to the elevator and cleaned, yielding probably a good grade of grain on one side and screenings on the other. The grain is used for milling and the screenings for mixing with feeding stuffs. Most of the screenings coming into the State in mixed feeds are ground, thus rendering germination impossible; many of the poultry feeds, however, contain weed seeds in a viable condition.

Screenings vary greatly in composition and quality. Their value may be considerable or rather small, or they may even be dangerous on account of the presence of poisonous weed seeds.

In a sample of poultry feed, No. 71826, reported herein, 35% of the mixture were weed seeds, or an estimated number of 58,100 weed seeds for each 100 lbs. of the feed. If these weed seeds in a viable form are fed on the farm, they will soon stock the farm with undesirable and noxious weed plants.

Some poisonous fungi and weed seeds are likely to occur in feeds made from crops grown in Kentucky. The most dangerous ones are:

Ergot of rye and grasses (*Claviceps purpurea*).

Cockle (*Agrostemma githago*). This weed is commonly known as corn cockle.

Jimson weed (*Datura stramonium* and *D. tatula*).

Cocklebur (*Xanthium glabratum* and *Xanthium canadense*).

Sneczeweed (*Helenium autumnale*).

Larkspur (*Delphinium ajacis*).

Smut of wheat (*Tilletia tritici*).

Moldy corn (due to *Aspergillus glaucus*).

All the weeds mentioned are common on farms in most sections of the State and the list is often increased by the importation of other weed seeds in grains and mixed feeds, including the most objectionable ones. Care should be exercised to avoid purchasing grain and feeds containing weed seeds in a viable condition. If screenings or weed seeds are used in feeds of any sort, they should either be ground or subjected to high temperature to destroy their power to germinate in case they should reach the farm. In some of the molasses feeds and particularly the poultry feeds are found weed seeds in a perfectly viable state and, if permitted to reach the land, they will germinate and stock it with weeds.

An examination of a sample, M 16129, of "Feed Barley," revealed the following:

Barley	71.04%
Oats	19.21%
Weed seeds (wild mustard, barnyard grass, smart-weed, catchfly, wild buckwheat, green foxtail) ..	3.45%
Inert matter (dirt and chaff)	6.30%
	<hr/>
	100.00%

Examination of a sample of "grain screenings" from wheat, oats, rye and barley showed that 100 pounds of the screenings contained the following:

Wheat and rye	47.4 lbs.
Wild buckwheat	33.7 "
Flax	2.1 "
Hare's ear	2.3 "
Mustard sp.	4.6 "
The following weed seeds all together amount to....	6.6 "
White prickly poppy	1315 seeds
Corn cockle	363 "
Lamb's quarters	1134 "
Pigeon grass	1633 "
Foxtail	4172 "
Oats	680 "
Oat-grass	272 "
Stickweed	453 "
Canada thistle	45 "
Cress	90 "
Lady's thumb	181 "

Compositae	90	"
Miscellaneous	453	"
Corn (parts of seed)	45	"
Sticks and dirt	3.3	lbs.
		<hr/>
		100.0 lbs.

The most objectionable weed seeds in this sample are wild buckwheat, corn cockle, pigeon grass, foxtail and Canada thistle. Others are also objectionable, tho they are widely scattered everywhere on land and are not difficult ordinarily to suppress on cultivated ground.

A bag of 100 pounds of feed containing 25% or 25 pounds of these screenings, as presented in this analysis, is estimated to have in it 8¾ pounds of wild buckwheat seed, 9,075 corn cockle seed, 40,800 pigeon grass seed, 104,300 foxtail seed and 1,125 Canada thistle seed, which if permitted to germinate, will stock the farms with these weeds wherever such feeds are used.

MIXED FEEDS

Under this head a class of mixed feeds is included, composed of wheat by-products, a small amount of corn bran and, in most cases, grain screenings. These feeds vary somewhat in composition and value, depending on the amount of corn bran and screenings used. The bulk of feed made and sold in this State is from this group. The mixing of corn bran with the wheat products does not add any value to the wheat products but, on the contrary, takes from their value as a feed. Adding corn bran is merely a means of disposing of an inferior material at a price in excess of its value. Many of these feeds were adulterated with screenings, weed seeds and sweepings and rendered much inferior to their guaranty.

In this group of mixed feeds are included the analyses of bakery refuse, distillers' and brewers' dried grains, palmo midds and barley and oat chops or feeds.

One hundred and sixty-four samples were analyzed, seventy-four of which fell below in protein, ten in fat and nine ran above in fiber.

Those firms whose products reported herein show material deficiencies in comparison with their guaranties, are: Aviston Milling Co., Aviston, Ill., No. 72243, No. 72275; Baskett Grain Co., Henderson, Ky., No. 72404; Central Milling Co., Brodhead, Ky., No. 72156; Dawson Milling Co., Dawson Springs, Ky., No. 72127; Early & Daniel Co., Cincinnati, Ohio, No. 72188; Faywood Milling Co., Faywood, Ky., No. 72689; Franklin Kentucky Mills Co., Franklin, Ky., No. 72487; Garrard Milling Co., Lancaster, Ky., No. 72288, No. 72421, No. 72807; Glass Milling Co., Wilmore, Ky., No. 72045, No. 72057, No. 72297; R. L. Harrison & Sons, Bagdad, Ky., No. 72564; Hickman Milling Co., Nicholasville, Ky., No. 72050; Horse Cave Mills, Horse Cave, Ky., No. 72589; Lancaster Milling Co., No. 72802; Lone Mountain Milling Co., Middlesboro, Ky., No. 72257; Mountain City Mill Co., Chattanooga, Tenn., No. 72260; W. N. Neville, Arlington, Ky., No. 72951; Owenton Roller Mills, Owenton, Ky., No. 72685; Paducah Milling Co., Paducah, Ky., No. 72504, No. 71990, No. 72962; Scottsville Milling Co., Scottsville, Ky., No. 71934; Somerset Milling Co., Somerset, Ky., No. 72062, No. 72295; Star Roller Mills, Cloverport, Ky., No. 72546; Star Milling Co., Clinton, Ky., No. 71997; Vanhoose-Adams Co., Ashland, Ky., No. 72282; Woolcott Flour Mills, Lexington, Ky., No. 72132, No. 71705, No. 72198, No. 72691, No. 72699, No. 72712, No. 73102.

PROPRIETARY HORSE, DAIRY AND STOCK FEEDS

This is a group of mixed feeds made up largely of high-grade materials, with or without molasses. They vary in composition and value. Attention is called to the fact that many of the feeds in this group are made from the best materials obtainable and show care and intelligence in their manufacture, but, on the other hand, many are ordinary mixtures of low-grade materials and are often sold at excessive prices. Some of the brands are sold under fancy and catchy names and under names that are in no sense descriptive of the feeds or materials used. Molasses is added to most of these feeds, ostensibly for the added value it gives the feeds, but on the other hand it is used, in many cases, to cover up inferior materials used in the mixture. The feeder should bear in mind that the names, extravagant claims and excessive prices usually bear no relation to the true composition and that there is no real mystery in the compounding of these feeds.

Three hundred and twelve samples were analyzed, sixty-five of which fell below guaranty in protein, twenty-eight in fat and eleven ran above in fiber. Some of these feeds were adulterated and many were misbranded. The substitution of one ingredient for another, or the omission of an important one, or the use of a mere trace of important ingredients in the mixtures is too common a practise.

Those firms whose products reported herein showed material deficiencies in comparison with their guaranties, are: Acme Evans Co., Indianapolis, Ind., No. 72012, No. 72161; The Acme Mills, Hopkinsville, Ky., No. 71978; Ashland Milling Co., Ashland, Ky., No. 71660; Aubrey & Co., Louisville, Ky., No. 72399; Bradley Bros., Paducah, Ky., No. 72389; Cate Milling Co., Hopkinsville, Ky., No. 72944; Chapman-Doake Co., Decatur, Ill., No. 72853; Cincinnati Grain & Hay Co., Cincinnati, Ohio, No. 72170, No. 72871; Colton Bros. Co., Bellefontaine, Ohio, No. 71944, No. 72253, No. 71945, No. 71715; Diamond Mills, Evansville, Ind., No. 72122; Early & Daniel Co., Cincinnati, Ohio, No. 73141, No. 73145; Elmen-dorf Coal & Feed Co., Lexington, Ky., No. 72473; Ferncliff Feed & Grain Co., Louisville, Ky., No. 72801, No. 73054, No. 72135; Grain Belt Mills Co., S. St. Joseph, Mo., No. 72785, No. 73070; Gwinn Bros. & Co., Huntington, W. Va., No. 71716; Hawthorne Milling Co., Cincinnati, Ohio, No. 72255; International Sugar Feed Co., Memphis, Tenn., No. 72513, No. 72953; Kentucky Feed & Grain Co., Louisville, Ky., No. 71845, No. 72830, No. 72159, No. 72191, No. 72345, No. 72757, No. 73008, No. 73048, No. 73082, No. 72317, No. 71910, No. 72222; Wm. H. Kramer, Cincinnati, Ohio, No. 72782, No. 73096, No. 73068; Louisville Seed Co., Louisville, Ky., No. 72249; M. C. Peters Mill Co., Omaha, Neb., No. 72337; Rapier Sugar Feed Co., Owensboro, Ky., No. 73003, No. 72603, No. 73117, No. 72547; The Sugarine Co., Owensboro, Co., No. 73022, No. 72480; Winchester Roller Mills, Winchester, Ky., No. 72700, No. 73057; Wood, Stubbs & Co., Louisville, Ky., No. 72302; Woolcott Flour Mills, Lexington, Ky., No. 72806; Ziliak & Schafer Milling Co., Evansville, Ind., No. 72919.

PROPRIETARY HORSE, DAIRY AND STOCK FEEDS CONTAINING MATERIAL OF LITTLE OR NO FEEDING VALUE

All feeds containing a material of little or no feeding value, or a material that cannot be classed as a concentrate under the law, are grouped in this class, except poultry feeds containing grit. Many of these feeds contained also other low-grade materials such as damaged grains, screen-

ings, weed seeds, and sweepings and elevator refuse. These feeds vary widely in composition and feeding value. The prices paid for them were excessive in most cases, and it may be said of these feeds, generally speaking, that they are inferior grades of feeds. Many of these feeds contained materials, tho low in feeding value, yet of sufficient amount of nutrients to justify their use and conservation, but many of the materials are worthless as feeds. The use of these low-grade materials as feeds often result in hardship for the animals to which they are fed and a loss to the owners of such animals as well. These feeds are rarely sold on their true merit, the low-grade materials selling for what first class feeds bring. Most of these feeds equaled or exceeded their guaranty, and in many cases the prices were based on a reasonable value of the feed. Generally speaking these feeds are not economical.

Ninety-eight samples of this group were analyzed, thirty of which fell below guaranty in protein, fourteen in fat, and seventeen ran above in fiber.

Those firms whose products reported herein showed material deficiencies in their guaranties, are: Acme Evans Co., Indianapolis, Ind., No. 73113; The Corno Mills Co., E. St. Louis, Ill., No. 72937, No. 72276; No. 72292, No. 72938; No. 73041; D. A. Davis & Son, Jeffersontown, Ky., No. 73209; Golden Grain Milling Co., E. St. Louis, Ill., No. 72269; Hales & Hunter Co., Chicago, Ill. No. 72796, No. 72862, No. 73071; Chas. A. Krause Milling Co., Milwaukee, Wis., No. 72720, No. 73066, No. 73061, No. 72283, No. 72719; The Sugarine Co., Owensboro, Ky., No. 73004, No. 73127.

POULTRY FEEDS

The poultry feeds, both grain and mash, varied considerably in composition, but came well within their guaranty in both protein and fat. A number contained grain screenings with a large percentage of weed seeds.

One hundred and twenty-five samples of poultry grains were analyzed, six of which fell below guaranty in protein, two in fat and one ran above in fiber. Forty-two were adulterated with weed seeds, ranging from 1 to 30%. Thirty-five samples were misbranded in that they did not contain the ingredients guaranteed.

Those firms whose grain products reported herein show deficiencies and adulteration with weed seeds, are: American Milling Co., Peoria, Ill., No. 73191, No. 73156, No. 73192; Arcady Farms Milling Co., Chicago, Ill., No. 72790, No. 73208, No. 73098; Aubrey & Co., Louisville, Ky., No. 73044, No. 73207, No. 73202; Cincinnati Grain and Hay Co., Cincinnati, Ohio, No. 72306; The Corno Mills Co., E. St. Louis, Ill., No. 72261; Diamond Mills, Evansville, Ind., No. 72978, No. 72534; P. H. Harsha, Portsmouth, Ohio, No. 71713; Illinois Feed and Elevator Co., Bloomington, Ill., No. 72571, No. 72572; International Sugar Feed Co., Minneapolis, Minn., No. 72335; Kentucky Feed and Grain Co., Louisville, Ky., No. 72192, No. 71682, No. 72913, No. 71826 (this sample contained 35% of weed seeds, or an estimated number of 58,100 for 100 lbs. of this feed), No. 73204, No. 73206; Louisville Cereal Mill Co., Louisville, Ky., No. 72058, No. 72242, No. 73172, No. 73174; Park & Pollard Co., Chicago, Ill., No. 73158; M. C. Peters Mill Co., Omaha, Neb., No. 72338; Rapier Sugar Feed Co., Owensboro, Ky., No. 72824; R. D. Riedling, Louisville, Ky., No. 72464,

No. 72558, No. 73188; Ritter-Hennings Co., Louisville, Ky., No. 73179, No. 73178, No. 73181; Robey Mills, Chicago, Ill., No. 73099, No. 73110; Roosevelt Mills, Chicago, Ill., No. 73160; Rosenbaum Bros., Chicago, Ill., No. 72029; Southern Seed Co., Louisville, Ky., No. 73136, No. 72477, No. 72059; The Sugarine Co., Owensboro, Ky., No. 73162, No. 72397, No. 72415, No. 72416, No. 73193; Wood, Stubbs & Co., Louisville, Ky., No. 73024, No. 72367.

Seventy-six samples of mash were analyzed, fifteen of which fell below guaranty in protein, two in fat and five ran above in fiber. Sixteen were misbranded.

Those firms whose mash products reported herein showed material deficiencies in their guaranties are: Alfocorn Milling Co., St. Louis, Mo., No. 72215; Baskett Grain Co., Henderson, Ky., No. 72114; Blue Grass Commission Co., Lexington, Ky., No. 72879; Chapman-Doake Co., Decatur, Ill., No. 72852; The Cornò Mills Co., E. St. Louis, Ill., No. 72008; Ferncliff Feed and Grain Co., Louisville, Ky., No. 72890; W. E. Hess & Co., Louisville, Ky., No. 71808; Morganfield Roller Mills, Morganfield, Ky., No. 72374; Simmons Milling Co., Cincinnati, Ohio, No. 72754; The Sugarine Co., Owensboro, Ky., No. 71884.

**NUMBER OF TONS OF THE DIFFERENT KINDS OF FEEDS SOLD
IN KENTUCKY FOR 1921 AND 1922**

	1921	1922
	Tons	Tons
Alfalfa meal	200	100
Barley, ground	100	225
Barley malt .....	.....	175
Brewers' dried grains	125	50
Calf meal	125	75
Corn bran	388	75
Corn chop and cracked corn	21900	23500
Corn and cob, crushed	175	200
Corn and oat chop	275	350
Corn, oats and barley chop .....	.....	175
Corn feed meal	3925	4100
Corn germ meal .....	.....	25
Corn gluten feed	100	200
Cotton seed meal 43%	1690	1175
Cotton seed meal 41%	6525	5775
Cotton seed meal 38½%	175	.....
Cotton seed feed 36%	700	925
Dairy feed	14800	22750
Dried beet pulp .....	.....	100
Dried buttermilk .....	.....	50
Dried yeast grains	25	.....
General stock feed	7600	10450
Hog feed	1200	2350
Hominy feed	7450	7175
Horse and mule feed	23650	26275
Linseed oil meal	525	600
Matzos meal .....	.....	100
Meat meal	425	850
Meat scraps	400	275
Mixed feeds (wheat and corn)	33475	37967
Oats, ground	200	625
Oats, rolled .....	.....	125
Oats and barley, ground	25	50
Oat feed (oat middlings and oat hulls) .....	.....	100
Oat middlings .....	.....	25
Palmo middlings	675	625
Pigeon feed .....	.....	175
Poultry feed, grains	19200	30400
Poultry feed, mash	4000	9000
Red dog flour	300	1050
Rice bran	225	50
Rye middlings	275	425
Tankage	1550	1775
Wheat bran (and screenings)	7300	7525
Wheat middlings (and screenings)	19650	19650
Wheat mixed feed (and screenings)	24225	25775
Wheat and rye middlings .....	.....	750

EXPLANATION OF THE TABLES

The analyses given in the following tables represent samples taken by our inspectors from various kinds of feeds registered and found on the market. For convenience, the analyses of feeds of the same class are grouped together. In the tables of analyses the manufacturer's guaranty is printed in *bold face figures*.

Table VI covers straight feeds, or feeds made of one grain or plant only. The names of the grains or plants from which these feeds are made are given in alphabetical order and the names of the products of each grain or plant are given in alphabetical order also.

Table VII contains a class of mixed feeds composed of wheat and corn and their by-products, with wheat screenings ranging from 1 to 15%. The feeds in this group are composed almost wholly of wheat, but where corn product appears, corn bran is the principal ingredient and ranges from a trace to 20 or 30%.

Brewers' and distillers' dried grains, mixed middlings and palmo middlings are included in Table VII as mixed feeds.

Table VIII includes all feeds termed "poultry feeds."

Table IX contains the miscellaneous mixed feeds, made up of materials which are clearly classed as concentrates and a combination of grains or cereals.

Table X contains the miscellaneous mixed feeds containing a material or materials of little or no feeding value.

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TABLE VI.—STRAIGHT FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis		
			Prot.	Fat	Fiber
Alfalfa Meal.					
2654-20	Alfalfa Meal	The Cincinnati Hay & Grain Co. Cincinnati, Ohio.	15.13 12.00	1.55 3.00	34.0 30.0
2974-20	Alfalfa Meal	J. H. Fedders & Sons..... Covington, Ky.	16.63 14.50	1.78 2.00	30.0 28.0
659-20	Peters' Lucern Choice Alfalfa Meal	M. C. Peters Mill Co..... Omaha, Nebr.	14.38 12.00	1.95 0.50	28.0 33.0
Animal Products.					
761-19	Armour's Meat Meal.....	Armour Fertilizer Works..... Chicago, Ill.	57.69 60.00	11.96 6.00	2.2 2.0
761-21	Same	Same	60.25 60.00	10.21 6.00	2.1 2.0
761-21	Same	Same	60.38 60.00	5.42 6.00	2.3 2.0
761-22	Same	Same	59.06 60.00	5.37 6.00	2.0 2.0
1817-19	Magic Brand Meat Scraps.....	Chicago Feed & Fertilizer Co... Chicago, Ill.	54.94 50.00	14.46 5.00	2.2 3.0
4219-22	Abattoir Brand Meat Meal.....	The Joslin-Schmidt Co..... Cincinnati, O.	51.00 50.00	12.97 5.00	1.4 3.0
4163-22	K-C Special Meat Scraps.....	The Ky. Chemical Mfg. Co.... Covington, Ky.	51.12 50.00	14.78 8.00	2.3 3.0
4163-22	Same	Same	50.12 50.00	17.06 8.00	2.3 3.0
2496-21	U. S. Standard Meat Scraps.....	Same	45.56 50.00	15.15 8.00	3.6 3.0
3371-22	Swift's Meat and Bone Scraps....	Swift & Co..... Chicago, Ill.	50.26 50.00	12.17 6.00	1.4 3.0
3812-22	"Red W" Brand Poultry Meat Scraps	Wilson & Co., Inc. Chicago, Ill.	53.32 50.00	11.08 6.00	2.4 5.0
3812-22	Same	Same	57.62 50.00	9.13 6.00	2.4 5.0
4084-22	Buhner's Digester Tankage.....	Buhner Fertilizer Co..... Seymour, Ind.	57.12 60.00	9.15 5.00	1.7 3.0
2893-20	Premium Digester Tankage.....	Cleveland Provision Co..... Cleveland, Ohio.	68.20 60.00	6.00 7.00	1.2 2.5
863-19	Darling's Digester Tankage.....	Darling & Co..... Chicago, Ill.	58.22 60.00	3.54 0.50	3.4 3.0
863-20	Darling's 60% Digester Tankage..	Same	63.12 60.00	3.78 0.50	3.3 3.0

ANALYSES OF INSPECTORS' SAMPLES.

SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
0 Collier Bros. Paris, Ky. Mfrs. Warehouse	Alfalfa meal..... Alfalfa meal.....	Above guaranty in fiber.
0 Owensboro Milling Co... Owensboro, Ky.	Alfalfa meal.....	
9 Mayhew & Gilbert..... Franklin.	Meat residues	Below guaranty in pro- tein.
1 Trigg Co. Feed & Pro. Co. Cadiz.	Same	
1 J. P. Page..... Barlow.	Same	
2 Owensboro Milling Co... Owensboro.	Same	Below guaranty in pro- tein.
9 Wm. Addams	Meat residues	
2 Breeden & Ward..... Science Hill.	Meat product	
22 C. S. Brent Seed Co..... Lexington.	Meat scraps	23.75% bone present. Mislabeled.
22 Boone Co. Farm Bureau. Florence.	Same	
21 Cincinnati Grain & Hay Co., Covington.	Same	Below guaranty in pro- tein and above in fi- ber. Inferior to guar- anty.
22 Oscar Farmer & Sons... Louisville.	Meat and bone residue.....	
22 Edinger & Co..... Louisville.	Meat scraps	This product should be called meat and bone scraps. Misbranded.
22 Geo. P. Taylor Co..... Burnside.	Meat, blood and bone.....	
22 Henry Paris	Blood and meat product.....	Below guaranty in pro- tein. Inferior to guar- anty.
20 Henderson Feed & Com- mission Co., Henderson	Meat product	
19 Beaver Dam Milling Co.. Beaver Dam.	Same	Below guaranty in pro- tein.
20 Henderson Feed & Com- mission Co., Henderson	Same	

TABLE VI.—STRAIGHT FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
	Tankage	Diamond Mills	49.82	8.95
		Evansville, Ind.	.....	.....
2295-21	60% Digester Tankage	Early & Daniel Co.....	57.76	8.20
		Cincinnati, Ohio	60.00	8.00
894-21	Eckert's Pig's Delight	Eckert Packing Co.....	39.25	11.56
		Henderson, Ky.	30.00	10.00
894-21	Same	Same	40.13	10.87
			30.00	10.00
563-22	60% Feeding Tankage.....	The Evansville Packing Co....	59.50	8.79
		Evansville, Ind.	60.00	8.00
563-22	Same	Same	58.76	6.54
			60.00	8.00
563-22	Same	Same	64.94	7.90
			60.00	8.00
563-22	Same	Same	60.88	5.47
			60.00	8.00
563-22	Same	Same	60.50	7.73
			60.00	8.00
563-22	Same	Same	64.26	7.29
			60.00	8.00
563-22	Same	Same	67.38	6.26
			60.00	8.00
563-22	Same	Same	63.62	6.81
			60.00	8.00
563-22	Same	Same	64.76	6.68
			60.00	8.00
3535-22	Field's Tankage	Field Packing Co.	64.36	6.67
		Owensboro.	60.00	5.00
964-21	Abattoir Brand Digester Tankage.	Groves Fertilizer Co., (Joslin-	58.38	8.30
		Schmidt Co., Cincinnati, O..	60.00	5.00
964-21	Same	Same	57.38	7.55
			60.00	5.00
1490-19	Hine Bros. Digester Tankage....	Hine Bros. Co.....	63.38	5.96
		Chicago, Ill.	60.00	5.00
1490-19	Same	Same	64.00	6.17
			60.00	5.00
2347-19	Ellis Digester Tankage.....	Hopkins Fertilizer Co.....	51.50	6.30
		New Albany, Ind.	50.00	5.00
3033-20	Pigrow	Same	56.00	8.89
			60.00	5.00
3033-20	Same	Same	56.88	8.28
			60.00	5.00
3033-21	Same	Same	60.62	10.66
			60.00	5.00

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
	R. W. Willingham..... Henderson.	Meat and bone.....	Meat and bone tankage. Not labeled with the Kentucky label. 25.47 per cent bone.
-21	Cogar Grain, Coal & Feed Co., Harrodsburg.....	Meat residues	Below guaranty in pro- tein.
-21	Baskett Grain Co..... Henderson.	Blood, bone and meat residues..	Considerable offal and foreign matter pres- ent. Above guaranty in fiber.
-21	Norris-Lockett & Co.... Henderson.	Same	
-22	Park City Feed Store... Bowling Green,	Blood, meat	Ground bone present.
-22	Wilson & Newman..... Russellville.	Same	Ground bone present. Below guaranty in protein.
-22	G. H. Harris..... Cloverport.	Same	
-22	Morganfield Hardware & Gro. Co., Morganfield....	Same	Below guaranty in fat. 13.45 % bone present.
-22	Cline Bros. Franklin.	Same	
-22	F. H. Vogle..... Henderson.	Same	
-22	Park City Feed Store... Bowling Green.	Same	
-22	John L. Hosman..... Morganfield.	Same	
-22	W. E. Wilson..... Russellville.	Same	
-22	Lancaster-Smith Seed Co. Owensboro.	Ground dried blood, meat scraps, ground residue from animal tis- sue exclusive of hoof and horn, ground bone.....	
-21	M. D. Royse..... Winchester.	Meat product	Below guaranty in pro- tein.
-21	Wm. Addams	Same	Inferior to guaranty. Be- low guaranty in pro- tein.
-19	A. B. Wilkins	Same	
-19	Lambert-Grisham Hard- ware Co., Henderson..	Same	12% bone present.
-19	Woosley & Son..... Elizabethtown.	Dried tankage, blood.....	
-20	Blue Grass Com. Co.... Lexington.	Same	Below guaranty in pro- tein.
-20	Same	Same	Same.
-21	Louisville Hay, Grain & Coal Co., Louisville. ...	Same	

TABLE VI.—STRAIGHT FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
3033-21	Pigrow	Hopkins Fertilizer Co.	64.13	8.70
		New Albany, Ind.	60.00	5.00
3633-21	Digester Tankage	Indianapolis Abattoir Co.	68.88	4.83
		Indianapolis, Ind.	60.00	3.50
3637-21	Diamond K Digester Tankage....	The E. Kahn's Sons Co.	63.38	4.40
		Cincinnati, Ohio.	60.00	5.00
3637-21	Same	Same	59.82	6.53
			60.00	5.00
3637-21	Same	Same	62.26	4.51
			60.00	5.00
3637-21	Same	Same	65.00	4.83
			60.00	5.00
3637-21	Same	Same	61.26	4.94
			60.00	5.00
2088-22	Klarer Digester Meat and Bone Tankage	Klarer Provision Co.	41.00	10.99
		Louisville, Ky.	42.43	5.31
4023-22	Digester Tankage	Memphis Packing Corporation..	51.62	6.15
		Memphis, Tenn.	50.00	2.00
501-19	Big Sixty Meat Meal Digester Tankage	Morris & Co.	55.62	9.48
		Chicago, Ill.	60.00	6.00
501-19	Same	Same	62.26	8.28
			60.00	6.00
501-19	Same	Same	58.82	8.55
			60.00	6.00
501-19	Same	Same	55.88	10.93
			60.00	6.00
501-22	Same	Same	56.26	5.35
			60.00	6.00
501-22	Same	Same	59.50	8.01
			60.00	6.00
1913-19	Rauh's Digester Tankage.....	E. Rauh & Sons Animal Feed Co	58.94	9.05
		Indianapolis, Ind.	60.00	8.00
4361-22	"Daisy" Tankage	C. Rice Packing Co.	49.56	29.58
		Covington, Ky.	46.00	23.53
1263-19	Digester Tankage	Standard By-Products Co.	61.63	5.34
		Louisville, Ky.	60.00	5.00
1263-20	Same	Same	46.63	5.10
			60.00	5.00
1263-20	Same	Same	54.44	4.73
			60.00	5.00
1263-20	Same	Same	60.75	3.91
			60.00	5.00

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
21	Lebanon Carriage & Implement Co., Lebanon....	Dried tankage, blood.....	
21	Conrad J. Clausen..... Louisville.	Meat, blood and bone.....	
21	J. L. Hart..... Cynthiana.	Same	
21	Brent & Co..... Paris.	Same	
21	F. H. Gordon..... Richmond.	Same	
21	J. B. Penn & Co..... Georgetown.	Same	9.22% bone present.
21	Brent & Co..... Paris.	Same	
22	Harvey Stout & Sons.... Buechel.	Blood, bone and meat offal.....	Below guaranty in protein and above in fiber.
22	Herbert Hawkins..... Paducah.	Tankage, blood	Small amount offal present.
19	Browder Milling Co.... Fulton.	Residue of animal matter, exclusive of hoof and horn.....	Below guaranty in protein.
19	Same	Same	
19	Same	Same	Below guaranty in protein.
19	Acme Mills	Same	Below guaranty in protein and inferior to claims.
22	Mayhew & Gilbert Co... Franklin.	Same	Below guaranty in protein and much inferior to claim.
22	Browder Milling Co.... Fulton.	Same	
19	J. B. Penn & Co..... Georgetown.	Meat product	Below guaranty in protein.
22	Boone Co. Farm Bureau. Florence.	Beef, calf and lamb offal.....	
19	Yopp Seed Co..... Paducah.	Ground dried blood, meat scraps, ground residue from animal tissue exclusive of hoof and horn, ground bone.....	
20	Bedford & Tuttle..... Winchester.	Same	Much below guaranty in protein. Inferior quality.
20	Henry Fruechtenicht.... Louisville.	Same	Below guaranty in protein.
20	Conner-Hayden & Co.... Bardstown.	Same	

TABLE VI.—STRAIGHT FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
485-22	Swift's Digester Tankage.....	Swift & Co.....	60.26	8.20
		Nat'l Stock Yards, Ill.	60.00	5.00
485-22	Same	Same	51.56	12.48
			60.00	5.00
485-22	Same	Same	62.76	6.37
			60.00	5.00
485-22	Same	Same	61.62	7.67
			60.00	5.00
4100-22	"Success Brand" Digester Tank- age	United By-Products Co.....	59.25	10.82
		Chicago, Ill.	60.00	6.00
4100-22	Same	Same	56.12	10.65
			60.00	6.00
4100-22	Same	Same	58.62	9.71
			60.00	6.00
4100-22	Same	Same	57.32	11.97
			60.00	6.00
4100-22	Same	Same	59.56	10.11
			60.00	6.00
4100-22	Same	Same	58.88	11.06
			60.00	6.00
4100-22	Same	Same	58.38	13.75
			60.00	6.00
4100-22	Same	Same	60.88	11.09
			60.00	6.00
4100-22	Same	Same	56.38	14.99
			60.00	6.00
4100-23	Same	Same	56.38	8.57
			60.00	6.00
1428-20	Western Digester Tankage.....	Western Packing and Provision Co., Chicago, Ill.....	61.88	8.98
			60.00	6.00
1011-21	Wilson's High Protein Tankage..	Wilson & Co., Inc.....	59.50	9.07
		Chicago, Ill.	60.00	6.00
1011-21	Same	Same	62.38	8.01
			60.00	6.00
4012-22	"Red W" Brand Digester Tank- age	Same	60.38	9.93
			60.00	6.00
4012-22	Same	Same	60.26	9.44
			60.00	6.00
Barley Products.				
149-21	Dorsel's Barley Meal.....	The Dorsel Co.....	12.63	3.17
		Newport, Ky.	12.00	2.50

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
22	Browder Milling Co..... Fulton.	Meat residues	Offal present.
22	Herbert Hawkins..... Paducah.	Same	Below guaranty in pro- tein.
22	Blue Grass Comm. Co.... Lexington.	Same	
22	Farmers Union Sup. Co.. Winchester.	Same	
22	D. A. Davis & Son..... Jeffersontown.	Meat, blood and bone.....	Below guaranty in pro- tein. Offal present.
22	C. S. Brent Seed Co..... Lexington.	Same	Below guaranty in pro- tein. Inferior product. Offal present.
22	Blue Grass Comm. Co.... Lexington.	Same	
22	Trent & Bruner..... Irvington.	Same	Below guaranty in pro- tein. Offal present.
22	Smith & Smith..... Shepherdsville.	Same	
22	Ferncliff Feed & Grain Co • Louisville.	Same	Below guaranty in pro- tein.
22	Haydon Mill & Grain Co. Springfield.	Same	Same.
22	T. W. Duncan..... LaGrange.	Same	
22	W. F. Wilson..... Nancy.	Same	Below guaranty in pro- tein. Bad odor, in- ferior to claim.
23	Ferncliff Feed & Grain Co Louisville.	Same	Below guaranty in pro- tein.
20	Wilson & Newman..... Russellville.	Meat scraps, blood.....	
21	Ritter-Hennings Co..... Louisville.	Blood and meat product.....	
21	Lexington Seed Co..... Lexington.	Same	Offal present.
22	Henry Fruechtenicht.... Louisville.	Meat, blood, bone.....	
22	Edinger & Co..... Louisville.	Same	
21	Mfrs. Warehouse	Barley	Contains considerable ground oats and corn product.

TABLE VI.—STRAIGHT FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
567-20	Ground Barley	The Early & Daniel Co..... Cincinnati, Ohio.	13.06 12.50	2.61 2.54
567-22	Same	Same	12.38 12.50	3.00 2.54
16-22	Same	The Early & Daniel Co..... Covington, Ky.	12.75 12.50	2.91 2.54
1339-19	Arrow Ground Barley.....	Edinger & Co..... Louisville, Ky.	13.00 11.00	2.40 1.80
3680-21	Ground Barley	George Keller	12.25	2.30
		Newport, Ky.	12.00	2.55
1707-21	Ground Barley	The Nutritia Co..... Cincinnati, Ohio.	13.13 11.00	2.20 3.50
Dried Beet Pulp.				
4664-23	Dried Beet Pulp	J. H. Pedders & Sons..... Covington, Ky.	8.75 8.00	0.84 0.50
487-18	Dried Beet Pulp	Larowe Milling Co..... Detroit, Mich.	8.25 8.00	0.45 0.50
Cocoanut Meal.				
2668-20	Copra Meal	The Cincinnati Grain & Hay Co. Covington, Ky.	24.63 19.00	15.43 5.50
Cracked Corn.				
581-21	Yellow Cracked Corn.....	The Early & Daniel Co..... Cincinnati, Ohio.	8.94 8.60	4.37 4.00
1562-21	Cracked Corn	Greenup Milling Co..... Greenup, Ky.	9.75 8.59	4.43 3.75
2051-22	Same	Harrison Milling Co..... Harrison, Ohio.	9.13 8.00	3.41 4.00
2832-18	Corn Chops	Morganfield Roller Mills..... Morganfield, Ky.	9.63 9.40	3.49 4.80
4370-22	Cracked Corn	Olive Hill Milling Co.	9.75	4.07
		Olive Hill, Ky.	8.65	4.10
3156-22	Same	Rapier Sugar Feed Co..... Owensboro, Ky.	9.95 9.65	3.11 4.00
1731-21	Same	The Washington Milling Co.... Washington C. H., Ohio.	9.63 8.97	4.97 4.10
Corn Feed Meal.				
310-22	Homlik Feed	Acme-Evans Co..... Indianapolis, Ind.	9.69 8.50	4.30 3.00
3561-21	Alfocorn's Corn Feed Meal.....	Alfocorn Milling Co..... St. Louis, Mo.	8.00 9.00	3.12 3.50

ANALYSES OF INSPECTORS' SAMPLES.

SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
10 F. K. Tribble..... Danville.	Ground barley	
2 Bedford & Tuttle..... Winchester.	Barley	Ground oats present.
2 Coffee & Van Hook..... Moreland.	Ground barley	Same.
9 Anderson Feed & Seed Co Lawrenceburg.	Barley	
1 Hudson & Farnau..... Lancaster.	Ground barley	
1 John L. Hart..... Cynthiana.	Barley	Below guaranty in fat.
3 Harry Hartke..... Covington.	Residue of sugar beets dried after extraction of sugar.....	
8 Baskett Grain Co..... Henderson.	Same	
0 Collier Bros..... Paris.	Dried cocoanut meats.....	
1 F. K. Tribble	Shelled corn	
1 J. Harris	Corn	
2 J. F. Bertram	Shelled corn	
8 Rea & Rice.....	Corn	
2 C. S. Cartee..... Olive Hill.	Same	
2 W. D. Smith..... Russellville.	Whole corn	Below guaranty in fat.
1 Ashland Iron & Mining Co., Ashland.	Shelled corn	
2 Cole, Hughes & Co..... Barbourville.	Reground corn feed meal.....	Oat hulls present.
1 J. R. List..... Latonia.	Ground shelled corn.....	Below guaranty in pro- tein.

TABLE VI.—STRAIGHT FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
3561-21	Alfocorn's Corn Feed Meal.....	Alfocorn Milling Co..... St. Louis, Mo.	10.38 9.00	7.10 3.50
824-19	Homco Hominy Feed, Corn Screenings, (and part of germ removed)	American Hominy Co..... Indianapolis, Ind.	10.88 10.00	7.37 6.00
2798-20	Corn Feed Meal.....	Ballard & Ballard Co..... Louisville, Ky.	10.06 10.00	4.59 3.70
433-21	Same	Cincinnati Grain & Hay Co Covington, Ky.	10.00 9.85	4.15 4.25
2026-21	Feed Meal	The Colton Bros. Co..... Bellefontaine, Ohio.	9.00 9.50	3.62 4.00
3479-21	Corn Feed Meal.....	Dixie Mills Co..... E. St. Louis, Ill.	10.75 8.00	4.52 2.00
321-21	Dorsel's Corn Meal.....	The Dorsel Co..... Newport, Ky.	8.38 9.00	4.82 4.00
269-21	Corn Feed Meal.....	The Early & Daniel Co..... Covington, Ky.	8.13 8.43	5.21 4.29
585-21	Yellow Corn Meal.....	The Early & Daniel Co..... Cincinnati, Ohio.	10.31 8.00	4.60 4.00
585-21	Same	Same	8.75 8.00	4.70 4.00
1087-20	Arrow Feed Meal.....	Edinger & Co..... Louisville, Ky.	9.88 8.75	3.82 3.98
2969-20	Corn Feed Meal.....	J. H. Fedders & Sons..... Covington, Ky.	9.75 8.00	4.33 2.00
3367-21	Same	Golden Grain Milling Co..... E. St. Louis, Ill.	8.50 9.00	4.15 3.50
3073-21	Same	Illinois Feed & Elevator Co.... Bloomington, Ill.	9.63 9.00	4.19 4.00
3441-23	Corn Feed Meal.....	Kentucky Feed & Grain Co.... Louisville, Ky.	9.13 9.00	4.05 3.00
4030-22	"Snowflake" Corn Feed Meal (and ground screenings).....	Lawrenceburg Roller Mills Co.. Lawrenceburg, Ind.	9.63 8.70	6.48 3.70
4125-22	Feed Meal	London Mill Co..... London, Ohio.	8.56 9.00	3.62 3.00
3157-21	Corn Feed Meal.....	Rapier Sugar Feed Co..... Owensboro, Ky.	10.25 8.65	4.22 4.00
3157-21	Same	Same	9.88 8.65	3.99 4.00
3157-21	Same	Same	9.00 8.65	3.55 4.00
3157-22	Same	Same	10.38 8.65	4.61 4.00
3157-22	Same	Same	9.00 8.65	4.40 4.00

ANALYSES OF INSPECTORS' SAMPLES.

SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
1 Yopp Seed Co..... Paducah.	Ground shelled corn.....	
9 Jellico Grocery Co..... Corbin.	By-product from the manufacture of grits, meal and flake with corn screenings added and part of the germ removed.	
0 The Bryant Feed Co.... Corbin.	Corn	
1 B. Wieck & Co..... Covington.	Shelled corn	Contains ground and unground wheat screenings.
1 Thompson Grocery Co... Pineville.	Pure ground corn.....	Below guaranty in both protein and fat.
1 Oscar Farmer & Sons.... Louisville.	Shelled corn	
1 Fred Sauerbeck..... Newport.	Corn	Below guaranty in pro- tein.
1 John Kunkemoeller Newport.	Corn	
1 Hall & Son..... Stamping Ground.	Same	
0 Henry Deters	Same	
0 Amos Yeager	Same	
0 Henry Deters	Same	
1 Renfro Supply Co..... Williamsburg.	Corn feed meal.....	Below guaranty in pro- tein.
1 Oscar Farmer & Sons.... Louisville.	Siftings from cracked corn.....	
3 Harlan Grocery & Grain Co., Harlan	Corn	
2 Pineville Produce Co.... Pineville.	Pure corn by-product, ground corn screenings 3%	Above guaranty in fiber.
2 Dixie Wholesale Gro. Co. Barbourville.	Shelled corn	
1 W. E. Cook..... Whitesburg.	Whole corn	Made out of damaged corn. Above guaranty in fiber.
1 Harlan Grocery & Grain Co., Harlan	Same	
1 Dunmor Roller Mills.... Dunmor.	Same	Above guaranty in fiber.
2 C. R. Rhodes & Bro..... Owensboro.	Same	Ground cob and corn screenings present.
2 L. Cohen	Same	
Central City.		

TABLE VI.—STRAIGHT FEED

Reg. No.	NAME OF FEED	MANUFACTURER	Analy	
			Prot.	Fa
3377-22	Atlas Corn Feed Meal.....	Southern Seed Co..... Louisville, Ky.	9.81 8.50	3.82 3.00
	Corn Gluten Feed.			
814-20	Buffalo Corn Gluten Feed.....	Corn Products Refining Co..... New York, N. Y.	25.38 23.00	2.51 1.00
	Hominy Feed.			
4449-22	Trojan Hominy Feed.....	The Allen & Wheeler Co..... Troy, Ohio.	10.63 10.00	8.13 6.00
824-22	Homco Hominy Feed (Corn Screen- ings and part of germ removed).	American Hominy Co..... Indianapolis, Ind.	11.38 10.00	7.73 6.00
2877-21	Hominy Feed	Aubrey & Co..... Louisville, Ky.	9.13 10.00	4.80 6.50
2877-22	Same	Same	10.50 10.00	8.37 6.50
2877-22	Same	Same	10.13 10.00	4.83 6.50
3549-21	Purity Hominy Chops.....	Baskett Grain Co..... Henderson, Ky.	10.25 8.50	7.58 5.25
776-22	Hominy Feed	Chas. Broecker & Co. Owensboro, Ky.	12.19 10.00	9.55 8.00
776-22	Same	Same	11.75 10.00	9.10 8.00
776-22	Same	Same	11.00 10.00	10.84 8.00
776-23	Same	Same	11.13 12.00	8.18 9.00
1550-21	Hominy Feed	Cincinnati Grain & Hay Co.... Covington, Ky.	9.63 11.00	4.63 8.45
1550-21	Same	Same	7.25 11.00	3.52 8.45
1550-22	Same	Same	12.00 11.00	9.47 8.45
3708-21	Same	Dixie Mills Co..... East St. Louis, Ill.	7.75 10.00	2.50 5.00
264-22	Same	The Early & Daniel Co..... Covington, Ky.	11.13 9.86	7.31 8.22

ANALYSES OF INSPECTORS' SAMPLES.

SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS--VARIANCE FROM GUARANTY
2 H. J. Grieve..... Louisville.	Corn	
0 Ritter-Hennings Co. Louisville.	Corn gluten feed.....	
2 Bell Grocery Co..... Pineville.	Corn by-product.....	
2 The H. T. Hackney Co.. Harlan.	By-product from the manufacture of grits, meal and flakes, with part of the germ removed and corn screenings 2½%.....	
1 Duncan & Co..... Pewee Valley.	Corn by-product.....	Below guaranty in both protein and fat.
2 S. T. Frazier..... Whitesburg.	Same	
2 Elkins & Kimmel Greenville.	Same	Misbranded. Not hominy feed but corn feed meal.
1 S. B. Jones..... Pembroke.	Mill run corn hearts (germ). Corn bran, and fine particles of meal from the kernel in the manufacture of degerminated meal.	
2 Henderson's Feed Store. Owensboro.	Corn	
2 Same	Same	
2 Taulbee & Co..... Hazard.	Same	
3 Lancaster-Smith Seed Co. Owensboro.	Same	Below guaranty in protein and fat.
1 Owenton Roller Mills.... Owenton.	Corn	
1 John Wuengermiller Latonia.	Same	Not hominy feed, but corn feed meal of low grade. Misbranded. Below guaranty in protein and fat.
2 Boone Co. Farm Bureau. Burlington.	Same	
1 Kenton Hay & Grain Co. Covington.	Corn product	Misbranded. The product is not hominy feed. Below guaranty in both protein and fat.
2 J. W. Rink..... Walton.	Corn	

TABLE VI.—STRAIGHT FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
584-22	Hominy Feed	The Early & Daniel Co.....	9.88	4.06
		Cincinnati, Ohio.	9.86	8.00
584-22	Same	Same	8.94	3.91
			9.86	8.00
1101-22	Arrow Hominy Feed.....	Edinger & Co.....	11.13	7.73
		Louisville, Ky.	10.22	6.73
3218-21	Evans Hominy Feed.....	Evans Milling Co.....	11.50	9.58
		Indianapolis, Ind.	10.00	7.50
3218-21	Same	Same	11.38	9.43
			10.00	7.50
3218-21	Same	Same	11.25	9.71
			10.00	7.50
3218-21	Same	Same	11.25	8.80
			10.00	7.50
3218-21	Same	Same	10.75	8.08
			10.00	7.50
3060-21	Farmers Hominy Feed.....	Farmers Hominy Mill.....	11.56	7.99
		Seymour, Ind.	10.00	7.50
2903-21	Hominy Meal	Kentucky Feed & Grain Co...	11.25	8.21
		Louisville, Ky.	10.00	6.00
1758-20	Corn Feed	Lexington Roller Mills Co....	10.75	8.38
		Lexington, Ky.	10.40	8.70
405-21	Hominy Meal	Louisville Cereal Mill Co.....	9.50	5.50
		Louisville, Ky.	10.00	6.00
1027-21	Sunny South Hominy Feed.....	Louisville Milling Co.....	12.00	7.50
		Louisville, Ky.	10.00	7.00
1027-22	Same	Same	10.50	7.05
			11.00	7.00
1433-22	Choice Hominy Feed.....	Perin-Brouse-Skidmore Grain & Milling Co., Cincinnati, Ohio..	9.88	4.01
			10.00	6.00
.....	Iowa White Hominy Feed.....	Purity Oats Co.....	11.00	7.87
		Davenport, Iowa.	9.00	5.00
2923-20	Yellow Hominy Feed.....	The Quaker Oats Co.....	10.63	6.98
		Chicago, Ill.	10.50	6.00
2923-20	Same	Same	9.63	5.98
			10.50	6.00
4221-22	White Hominy Feed.....	Same	9.13	3.39
			10.50	5.00
4221-22	Same	Same	9.75	5.90
			10.50	5.00
3648-21	Hominy Feed	R. D. Riedling.....	10.25	8.07
		Louisville.	10.00	6.00
3577-21	Sugarine Hominy Feed.....	The Sugarine Co.....	13.06	6.42
		Owensboro, Ky.	10.00	8.00

ANALYSES OF INSPECTORS' SAMPLES.

SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
2 Bedford & Tuttle..... Winchester.	Corn product	Below guaranty in fat.
2 Joe Kohmann..... Covington.	Same	This product is corn feed meal.
2 Shelbyville Feed & Pro- duce Co., Shelbyville..	Same	
4 Foley Bros. Pewee Valley.	Same	
1 Latonia Hay & Grain Co. Latonia.	Same	
1 J. H. Fedders & Sons... Covington.	Same	
1 H. C. Bird & Sons..... Independence.	Same	Above guaranty in fiber.
1 Edw. M. Riedling..... Louisville.	Same	
1 Conrad J. Clausen..... Louisville.	Corn product	
1 C. L. Jewell..... Horse Cave.	Corn	
0 Fayette Coal, Feed & Grain Co., Lexington.	Corn hearts, corn bran.....	
1 Joe Lovett..... Williamsburg.	Same	Below guaranty in both protein and fat.
1 J. W. Rider..... Mt. Vernon.	The product from the manufac- ture of hominy, hominy grits, and corn meal.....	
1 T. A. Gray & Son..... LaGrange.	Same	
2 Powell-Hackney Co..... Hazard.	Corn	Corn feed meal and not hominy meal.
. R. D. Riedling..... Louisville.	Corn	
0 A. Schneider's Sons..... Louisville.	Yellow corn	Contains oat hulls.
0 Blue Grass Comm. Co.... Lexington.	Same	Below guaranty in pro- tein.
2 Harry Hartke	Corn by-product	Below guaranty in both protein and fat.
2 R. F. Collier & Co..... Paris.	Same	
1 P. Fredericks..... Louisville.	Corn	Below guaranty in fat. Oat hulls present.
1 Amos Yeager	Same	

TABLE VI.—STRAIGHT FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
	Choice C/S Meal.			
2044-21	"Aco" Brand Cotton Seed Meal..	The American Cotton Oil Co..	40.13	7.93
		New York, N. Y.	41.20	7.00
2044-21	Same	Same	42.26	6.82
			41.20	7.00
2044-21	Same	Same	43.00	7.28
			41.20	7.00
2044-21	Cotton Seed Meal.....	Ashcraft-Wilkinson Co.....	41.06	7.83
		Atlanta, Ga.	41.00	7.00
2444-21	"Lone Star Brand" High Grade	F. W. Brode Corporation.....	42.81	8.58
	Cotton Seed Meal.....	Memphis, Tenn.	43.00	6.00
2444-21	Same	Same	39.88	7.17
			43.00	6.00
2444-22	"Owl Brand" 43% Cotton Seed	Same	42.70	8.34
	Meal		43.00	6.00
2444-22	Same	Same	42.12	8.54
			43.00	6.00
2444-22	Same	Same	42.32	8.75
			43.00	6.00
1264-21	"Owl Brand" Cotton Seed Meal.	Same	41.32	6.87
			41.00	6.00
1264-21	Same	Same	42.12	7.40
			41.00	6.00
1264-21	Same	Same	41.94	7.12
			41.00	6.00
1264-21	Same	Same	38.25	6.38
			41.00	6.00
1264-21	Same	Same	42.12	7.07
			41.00	6.00
1264-22	Same	Same	37.75	8.66
			41.00	6.00
1264-22	Same	Same	39.50	6.93
			41.00	6.00
1264-22	Same	Same	41.50	7.21
			41.00	6.00
1264-22	Same	Same	40.00	6.89
			41.00	6.00
1264-22	Same	Same	39.06	6.77
			41.00	6.00
1264-22	Same	Same	41.06	6.59
			41.00	6.00

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
21	D. A. Davis & Son..... Jeffersontown.	Cotton seed meal	Below guaranty in protein.
21	Yopp Seed Co..... Paducah.	Same	
21	J. Stotz..... Greenville.	Same	
21	Blue Grass Com. Co.... Lexington.	Same	
21	Summers Coal Co..... Smith's Grove.	Cotton seed	Below guaranty in protein and above in fiber.
21	Ed. C. Flowers..... Adairville.	Same	
22	H. R. Prewitt..... Mt. Sterling.	Same	
22	Same	Same	
22	A. S. Hart..... Mt. Sterling.	Same	
21	E. T. Walker..... Glendale.	Same	
21	C. S. Brent Seed Co.... Lexington.	Same	
21	George Keller	Same	
21	Amos Yeager	Same	Below guaranty in protein and above in fiber.
	Louisville.		
21	Hayes Bros	Same	Below guaranty in protein and above in fiber.
	Hodgenville.		
22	Vine Grove Feed Co.... Vine Grove.	Same	Below guaranty in protein and above in fiber.
22	W. W. Broaddus & Co... Richmond.	Cotton seed	
22	Bardstown Milling Co... Bardstown.	Same	Below guaranty in protein.
22	Eminence Milling Co.... Eminence.	Same	
22	Same	Same	Below guaranty in protein and above in fiber.
22	Brent & Co..... Paris.	Same	

TABLE VI.—STRAIGHT FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
1264-22	"Owl Brand" 41% Cotton Seed Meal	F. W. Brode Corporation..... Memphis, Tenn.	42.32	7.19
1264-22	Same	Same	41.00	6.00
1264-22	Same	Same	42.38	9.68
1264-22	Same	Same	41.00	6.00
1264-22	Same	Same	39.94	6.60
1264-22	Same	Same	41.00	6.00
1264-22	Same	Same	40.88	7.94
1264-22	Same	Same	41.00	6.00
1264-22	Same	Same	39.94	6.83
1264-22	Same	Same	41.00	6.00
1264-22	Same	Same	40.50	6.73
1264-22	Same	Same	41.00	6.00
1264-22	Same	Same	41.00	7.22
1264-22	Same	Same	41.00	6.00
1264-22	Same	Same	39.38	6.60
1264-22	Same	Same	41.00	6.00
1264-22	Same	Same	39.81	7.32
1264-22	Same	Same	41.00	6.00
1264-22	Same	Same	40.38	6.77
1264-22	Same	Same	41.00	6.00
1264-22	Same	Same	39.88	6.74
1264-22	Same	Same	41.00	6.00
1264-22	Same	Same	42.44	6.55
1264-22	Same	Same	41.00	6.00
1264-22	Same	Same	38.75	7.96
1264-22	Same	Same	41.00	6.00
2200-21	"Eagle Brand" Choice Cotton Seed Meal	The Cotton Seed Products Co.. Louisville, Ky.	40.63	6.30
2200-22	Same	Same	41.00	6.00
2200-22	Same	Same	42.76	7.31
2200-22	Same	Same	41.00	6.00
2200-22	Same	Same	42.12	6.97
2200-22	Same	Same	41.00	6.00
2200-22	Same	Same	39.38	6.88
2200-22	Same	Same	41.00	6.00
2200-22	Same	Same	41.13	6.57
2200-22	Same	Same	41.00	6.00
2200-23	Same	Same	39.56	6.27
2200-23	Same	Same	41.00	6.00
2200-23	Same	Same	40.56	6.87
2200-23	Same	Same	41.00	6.00
4710-23	Cotton Seed Meal.....	The Corno Mills Co..... E. St. Louis, Ill.	41.13	6.90
4710-23	Same	Same	41.00	6.00

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS--VARIANCE FROM GUARANTY
22	F. P. Spoonamore..... Stanford.	Cotton seed	
22	Blue Grass Com. Co..... Lexington.	Same	
22	Same	Same	Below guaranty in pro- tein.
22	Andrew Briggs	Same	
22	Bloomfield.		
22	Ferncliff Feed & Grain Co Louisville.	Same	Below guaranty in pro- tein and above in fiber.
22	City Wood & Coal Co.... Smith's Grove.	Same	
22	Trent & Bruner..... Irvington.	Same	
22	Barkley & Crutchfield. .. Pembroke.	Same	Below guaranty in pro- tein.
22	W. B. Campbell..... Hartford.	Same	Same.
22	Hayden Mill & Grain Co. Springfield.	Same	Below guaranty in pro- tein and above in fiber.
22	N. O. Blair..... Chicago.	Same	Same.
22	Amos Yeager	Same	
22	Louisville.		
22	Brent & Co., Inc..... Paris.	Same	Below guaranty in pro- tein and above in fiber.
21	Conrad J. Clausen..... Louisville.	Same	
22	Smith & Smith..... Shepherdsville.	Same	
22	Shepherdsville Roller Mills, Shepherdsville.	Same	
22	J. B. Polk..... Taylorsville.	Same	Below guaranty in pro- tein and above in fiber.
22	J. A. Bennett	Same	
22	Taylorsville.		
23	Kentucky Feed & Grain Co., Louisville	Same	Below guaranty in pro- tein and above in fiber. Excess of hulls.
23	Henry Freuchtenicht.... Louisville.	Same	
23	Burg Kinner	Same	
23	Greenup.		

TABLE VI.—STRAIGHT FEED

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
3804-21	Cotton Seed Meal.....	Early & Daniel Co..... Cincinnati, Ohio.	41.94 41.00	7.88 6.00
1083-20	Choice Cotton Seed Meal.....	Edinger & Co..... Louisville, Ky.	39.88 41.00	6.55 6.00
3533-21	Ox Brand Cotton Seed Meal.....	Chas. A. Hill & Co..... Nashville, Tenn.	40.56 41.00	6.10 6.00
3533-21	Same	Same	36.13 41.00	6.58 6.00
3533-21	Same	Same	39.63 41.00	6.49 6.00
2202-20	Bull Brand Cotton Seed Meal....	Humphreys Godwin Co..... Memphis, Tenn.	41.26 43.00	9.19 6.00
2202-21	Same	Same	42.56 43.00	7.35 6.00
2202-21	Same	Same	43.26 43.00	7.96 6.00
2202-21	Same	Same	42.76 43.00	7.19 6.00
968-20	"Dixie Brand" Cotton Seed Meal	Same	39.13 41.00	7.81 5.50
968-20	Same	Same	39.63 41.00	7.76 5.50
968-20	Same	Same	41.38 41.00	7.35 5.50
968-20	Same	Same	41.00 41.00	6.90 5.50
968-21	Same	Same	41.82 41.00	6.72 5.50
968-21	Same	Same	42.88 41.00	7.27 5.50
968-22	Same	Same	41.06 41.00	6.67 5.50
968-22	Same	Same	40.00 41.00	7.33 5.50
968-22	Same	Same	40.69 41.00	7.20 5.50
968-22	Same	Same	41.62 41.00	7.19 5.50
968-22	Same	Same	40.13 41.00	6.95 5.50
968-22	Same	Same	38.63 41.00	6.59 5.50

ANALYSES OF INSPECTORS' SAMPLES.

	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
1	Farmers' Union Sup. Co. Georgetown.	Pressed cotton seed	
0	Lake Bros. Springfield.	Decorticated cotton seed	Below guaranty in protein.
1	Allen Co. Farm Bureau.. Scottsville.	Same	Above guaranty in fiber.
1	W. L. Kimbrough & Son Guthrie.	Same	Inferior to guaranty. Adulterated with cotton seed hulls. Below guaranty in protein and above in fiber.
1	Same	Same	Below guaranty in protein and above in fiber.
0	J. F. Tabb Mt. Sterling.	Pressed cotton seed	Inferior to guaranty. Below guaranty in protein.
1	M. D. Royse..... Winchester.	Same	
1	Fox Caldwell Danville.	Same	
1	Anderson & Spilman.... Danville.	Same	
0	Yopp Seed Co..... Paducah.	Same	Below guaranty in protein and above in fiber.
0	Buffalo Dairy Association Buffalo.	Same	Below guaranty in protein.
0	H. T. Edwards..... Campbellsville.	Same	
0	J. B. Penn & Co..... Georgetown.	Same	
1	Wilson & Newman..... Russellville.	Same	
1	Yopp Seed Co..... Paducah.	Same	
2	J. H. Tate & Co..... Monticello.	Same	
2	H. T. Edwards..... Campbellsville.	Same	Below guaranty in protein.
2	Shepherdsville Roller Mills, Shepherdsville....	Same	
2	Allen Co. Farm Bureau.. Scottsville.	Same	
2	R. B. Hutchcraft & Co.. Paris.	Same	Below guaranty in protein.
2	Greene & Duff..... Mt. Sterling.	Same	Below guaranty in protein and above in fiber. Dark in color.

TABLE VI.—STRAIGHT FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
968-22	"Dixie Brand" Cotton Seed Meal	Humphreys Godwin Co.	40.69	6.95
		Memphis, Tenn.	41.00	5.50
968-22	Same	Same	41.94	7.81
			41.00	5.50
3061-21	Cotton Seed Meal	George Keller	41.63	8.18
		Newport, Ky.	43.00	6.00
2162-20	Lovit Brand Cotton Seed Meal	L. B. Lovitt & Co.	41.56	8.78
		Memphis, Tenn.	41.00	5.00
2162-20	Same	Same	41.50	7.64
			41.00	5.00
2162-22	Same	Same	41.00	7.06
			41.00	5.00
2162-22	Same	Same	42.88	7.03
			41.00	5.00
3047-21	"Alabama Brand" Cotton Seed Meal	Lyle & Lyle	40.00	7.06
		Huntsville, Ala.	41.00	6.00
3047-21	Same	Same	39.00	7.55
			41.00	6.00
3047-21	Same	Same	42.12	7.44
			41.00	6.00
3047-21	Same	Same	40.88	6.79
			41.00	6.00
.....	41% Cotton Seed Meal	McKay-Reece Co.	40.88	6.86
		Nashville, Tenn.	41.00	6.50
3733-21	Cotton Seed Meal	The McMillen Co.	43.32	7.37
		Ft. Wayne, Ind.	43.00	6.00
4476-22	"White Mule Brand" 43% Cotton Seed Meal	Marianna Cotton Oil Co.	43.62	7.85
		Memphis, Tenn.	43.00	6.00
4475-22	"White Mule Brand" 41% Cotton Seed Meal	Same	43.70	7.20
			41.00	6.00
4475-22	Same	Same	42.00	7.75
			41.00	6.00
4475-22	Same	Same	41.76	7.91
			41.00	6.00
4475-22	Same	Same	38.13	6.44
			41.00	6.00
4475-22	Same	Same	40.38	6.38
			41.00	6.00
4475-22	Same	Same	41.76	7.17
			41.00	6.00
4475-22	Same	Same	40.44	6.56
			41.00	6.00

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
9-22	J. F. Tabb..... Mt. Sterling.	Pressed cotton seed	
9-22	F. H. Gordon..... Richmond.	Same	
9-21	A. Deye	Cotton seed	Below guaranty in pro- tein.
9-20	Brent & Co., Inc. Paris.	Cotton seed meal	
9-20	R. D. Riedling..... Louisville.	Same	Dark in color and con- tains considerable lint.
9-22	Brent & Co., Inc. Paris.	Same	
9-22	E. F. Spears & Son..... Paris.	Same	
9-21	Conrad J. Clausen..... Louisville.	Decorticated cotton seed	Below guaranty in pro- tein and above in fiber.
9-21	Edw. M. Riedling..... Louisville.	Same	Same.
9-21	Oscar Farmer & Sons.... Louisville.	Same	
9-21	S. B. Jones..... Pembroke.	Same	
....	W. L. Kimbrough & Son. Guthrie.	Cotton seed	Not labeled with Ken- tucky labels.
9-21	Consolidated Coal Co.... McRoberts.	Cotton seed meal	
9-22	Bonta Bros. Harrodsburg.	Same	
9-22	Edw. M. Riedling..... Louisville.	Same	
9-22	Same	Same	
9-22	J. H. Thurman..... Springfield.	Same	
9-22	Oakland Milling Co..... Oakland.	Same	Below guaranty in pro- tein and above in fiber.
9-22	Munfordsville Milling & Supply Co., Munfordsville	Same	Below guaranty in pro- tein.
9-22	R. D. Robertson..... Mayfield.	Same	
9-22	J. H. Baughman & Co... Stanford.	Same	Below guaranty in pro- tein and above in fiber.

TABLE VI.—STRAIGHT FEEDS.

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis		
			Prot.	Fat	Fib.
4475-22	"White Mule Brand" 41% Cotton Seed Meal.....	Marianna Cotton Oil Co. Memphis, Tenn.	37.13 41.00	7.13 6.00	12.00 10.00
.....	Canary Brand Cotton Seed Meal..	C. L. Montgomery & Co. Memphis, Tenn.	40.88 43.00	7.49 9.00	10.50 10.00
331-20	Choice Brand Cotton Seed Meal..	Same	44.26 41.00	8.55 6.00	6.50 8.00
331-20	Same	Same	41.88 41.00	6.30 6.00	8.50 8.00
331-21	Same	Same	41.76 41.00	6.43 6.00	9.50 8.00
3686-22	"Durham 41"	Memphis Cottonseed Products Co. Memphis, Tenn.	38.44 41.00	6.72 6.00	11.00 10.00
2465-21	Bee Brand Cotton Seed Meal....	W. C. Nothern..... Memphis, Tenn.	42.12 41.00	7.58 6.00	9.00 12.00
2465-21	Same	Same	41.13 41.00	7.49 6.00	9.00 12.00
2465-21	Same	Same	40.44 41.00	7.53 6.00	9.50 12.00
2465-22	Same	Same	40.13 41.00	6.82 6.00	10.00 12.00
2465-22	Same	Same	37.75 41.00	6.17 6.00	12.60 12.00
2465-23	Same	Same	40.50 41.00	6.48 6.00	10.20 12.00
2465-23	Same	Same	40.63 41.00	6.33 6.00	10.60 12.00
2465-23	Same	Same	43.06 41.00	6.68 6.00	10.90 12.00
2465-23	Same	Same	40.88 41.00	6.56 6.00	12.00 12.00
3088-20	41% Cotton Seed Meal.....	Owensboro Milling Co. Owensboro, Ky.	40.88 41.00	7.31 6.00	10.50 10.00
435-20	Phoenix Choice Cotton Seed Meal	Phoenix Cotton Oil Co. Dyersburg, Tenn.	42.06 41.00	7.43 7.00	9.30 10.00
435-20	Same	Same	41.38 41.00	7.00 7.00	10.50 10.00
435-20	Same	Same	42.88 41.00	7.30 7.00	9.70 10.00
435-20	Same	Same	41.13 41.00	6.79 7.00	9.20 10.00
435-22	Same	Same	41.13 41.00	6.88 7.00	9.30 10.00
3748-21	43% Cotton Seed Meal.....	Same	43.00 43.00	6.76 6.00	9.80 10.00

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS--VARIANCE FROM GUARANTY
5-22	Ferncliff Feed & Grain Co Louisville.	Cotton seed meal.....	Below guaranty in pro- tein and above in fi- ber. Inferior to claim.
....	J. D. Clark.....	Decorticated cotton seed	Below guaranty in pro- tein.
1-20	Shepherdsville Roller Mills, Shepherdsville.	Pressed cotton seed	
1-20	Marshall Co. Milling Co. Benton.	Same	
1-21	Flavo Grain & Mill Co.. Somerset.	Same	
6-22	I. H. Hummer.....	Cotton seed	Below guaranty in pro- tein and above in fiber.
5-21	H. J. Grieve.....	Pressed cotton seed	
5-21	A. B. Wilson.....	Same	
5-21	Cave City.		
5-21	Martin & Hodgkin Sup- ply Co., Winchester...	Same	Below guaranty in pro- tein.
5-22	Franklin Elev. & Ware- house Co., Franklin...	Same	Same.
5-22	Oscar Farmer & Sons.... Louisville.	Same	Below guaranty in pro- tein and above in fi- ber. Inferior to claim.
5-23	Martin-Hodgkin Supply Co., Winchester...	Same	Below guaranty in pro- tein.
5-23	Same	Same	
5-23	Woodford Spears & Sons Paris.	Same	
5-23	Oscar Farmer & Sons.... Louisville.	Same	
8-20	Jacob Stotz	Cotton seed	Above guaranty in fiber.
5-20	Greenville.		
5-20	Herbert Hawkins	Decorticated cotton seed	
5-20	Paducah.		
5-20	W. B. Ray Feed Co.....	Same	Above guaranty in fiber.
5-20	Princeton.		
5-20	Browder Milling Co.....	Same	
5-20	Fulton.		
5-20	R. D. Robertson.....	Same	
5-22	Mayfield.		
5-22	J. J. Shaver & Co.....	Same	
5-22	Mayfield.		
8-21	Browder Milling Co.....	Same	
	Fulton.		

TABLE VI.—STRAIGHT FEEDS.

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis		
			Prot.	Fat	Fiber
3058-22	Cotton Seed Meal.....	Rapier Sugar Feed Co..... Owensboro, Ky.	41.13 41.00	6.89 7.50	9.5 10.0
3131-21	"Sansom's Choice 41%" Cotton Seed Meal	J. M. Sansom & Co..... Dallas, Texas.	43.75 41.20	7.87 6.00	9.5 10.0
2286-19	Atlas Cotton Seed Meal	Southern Seed Co. Louisville, Ky.	41.30 41.00	6.35 6.00	10.7 9.9
2286-23	Same	Same	39.88 41.00	6.52 6.00	11.0 9.0
3120-21	"Texoma Brand" Prime Cotton Seed Meal	Texas Cake & Linter Co..... Dallas, Texas.	39.44 43.00	12.70 6.00	8.1 12.0
3120-21	Same	Same	44.12 43.00	8.05 6.00	8.9 12.0
3404-22	Planet Brand Cotton Seed Meal..	A. C. Westervelt & Co..... Memphis, Tenn.	42.50 43.00	7.48 6.00	8.1 10.0
3404-21	Same	Same	43.00 43.00	7.39 6.00	8.1 10.0
3404-22	Same	Same	42.76 43.00	7.46 6.00	8.1 10.0
3403-22	Star Brand Cotton Seed Meal....	Same	39.75 41.00	6.96 5.50	10.0 10.0
3403-22	Same	Same	41.76 41.00	7.11 5.50	9.1 10.0
3403-22	Same	Same	42.12 41.00	7.33 5.50	8.0 10.0
Prime C/S Meal					
237-18	Dove Brand Cotton Seed Meal...	F. W. Brode & Co..... Memphis, Tenn.	39.69 38.62	8.55 6.00	11.5 12.0
C/S Feed.					
2-21	"Surety Brand" Cotton Seed Meal	The American Cotton Oil Co.... New York, N. Y.	35.63 36.00	6.03 5.50	14.2 14.0
2-21	Same	Same	35.56 36.00	5.73 5.50	14.0 14.0
.....	Cotton Seed Feed.....	Ashcraft & Wilkinson Co..... Atlanta, Ga.	33.75 36.00	5.81	16.5
.....	Same	Same	34.13 36.00	5.70	16.3
.....	Same	Same	37.88 36.00	..... 5.50	..... 14.0
575-19	Cotton Seed Feed.....	Blue Grass Commission Co.... Lexington, Ky.	34.75 36.00	5.63 5.00	15.3 15.0

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS -VARIANCE FROM GUARANTY
3-22	Star Roller Mills..... Cloverport.	Cotton seed	
1-21	Headley & Co..... Lexington.	Decorticated cotton seed	
3-19	S. M. Long & Sons..... Shelbyville.	Cotton seed	Above guaranty in fiber.
3-23	Glasgow Feed & Produce Co., Glasgow.	Same	Below guaranty in pro- tein and above in fiber.
0-21	D. A. Davis & Son..... Jeffersontown.	Same	Below guaranty in pro- tein.
0-21	Hudson & Davis..... Danville.	Same	
4-22	R. W. Willingham..... Henderson.	Pressed cotton seed	Below guaranty in pro- tein.
4-21	Summerville Bros. Feed Co., Lewisburg	Same	
4-22	R. W. Willingham..... Henderson.	Same	
3-22	Smithfield Milling Co... Smithfield.	Same	Below guaranty in pro- tein.
3-22	Yopp Seed Co..... Paducah.	Same	
3-22	Berea College Dairy.... Berea.	Same	
7-18	Acme Mills	Cotton seed	Dark brown color.
	Hopkinsville.		
2-21	George Keller	Cotton seed meal, cotton seed	
	Newport.	hulls 23%	
2-21	Huntman Bros.	Same	
	Newport.		
...	Blue Grass Com. Co.... Lexington.	Cotton seed	Below guaranty in pro- tein and has an ex- cess of fiber.
...	Same	Same	Same.
...	Same	Same	
5-19	Mfrs. Warehouse	Cotton seed meal, cotton seed	Below guaranty in pro- tein.
		hulls 25%	

TABLE VI.—STRAIGHT FEEDS.

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis		
			Prot.	Fat	Fiber
2318-18	Jay Brand Cotton Seed Feed.....	F. W. Brode & Co..... Memphis, Tenn.	31.50 36.00	5.25 5.00	16.7 14.0
2126-18	"Buckeye" Good Cotton Seed Meal	The Buckeye Cotton Oil Co.... Cincinnati, Ohio.	35.25 36.00	6.80 5.00	15.0 14.0
1849-18	"Buco" Cotton Seed Feed.....	Same	21.63 20.00	3.65 3.50	2.7 2.0
800-19	"Buckeye" Good Cotton Seed Feed	Same	36.69 36.00	6.02 5.00	14.3 14.0
800-19	Same	Same	35.88 36.00	7.37 5.00	11.2 14.0
850-20	Cotton Seed Feed.....	Chattanooga Feed Co..... Chattanooga, Tenn.	36.13 36.00	6.14 5.50	14.0 13.0
850-21	Same	Same	37.25 36.00	5.96 5.50	14.1 14.0
4714-23	"White Ribbon" Brand Cotton Seed Meal	R. G. Clarke & Co..... Memphis, Tenn.	34.75 36.00	5.92 5.00	10.3 15.0
1420-21	Good Cotton Seed Feed.....	The Cottonseed Products Co.... Louisville, Ky.	38.63 36.00	6.85 6.00	13.0 14.0
596-21	Same	The Early & Daniel Co..... Cincinnati, Ohio.	42.75 36.00	8.95 5.00	8.0 15.0
596-21	Same	Same	34.69 36.00	6.02 5.00	14.3 15.0
55-21	Economy Cotton Seed Feed.....	Lyle & Lyle..... Huntsville, Ala.	36.13 36.00	6.56 5.00	15.0 14.0
4474-22	"White Mule Brand" Good Cotton Seed Feed	Marianna Cotton Oil Co	37.50 36.00	6.71 5.00	11.0 14.0
4474-22	Same	Same	35.38 36.00	6.38 5.00	12.0 14.0
4474-23	Same	Same	35.44 36.00	7.05 5.00	13.0 14.0
Oil Meal.					
395-19	Amco Old Process Linseed Meal & Old Process Screenings Oil Feed	American Milling Co..... Peoria, Ill.	31.44 30.00	5.30 5.00	10.0 10.0
395-21	Same	Same	31.88 30.00	6.15 5.00	9.0 10.0
395-21	Same	Same	32.13 30.00	6.14 5.00	9.0 10.0
395-21	Same	Same	32.38 30.00	6.00 5.00	9.0 10.0
2648-21	A-D Old Process Ground Oil Cake	Archer-Daniels Linseed Co.... Louisville, Ky.	36.63 34.00	6.88 6.00	7.0 10.0

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
-18	Calloway County Farm Bureau, Murray.....	Cotton seed meal, cotton seed hulls 30%	Excess of hulls. Below guaranty in protein and above in fiber.
-18	George Keller	Cotton seed meal, cotton seed hulls 20%	Below guaranty in pro- tein.
-18	Newport. Wm. Addams	Cotton seed meal 50%, cotton seed hulls 50%	
-19	Cynthiana. Same	Cotton seed meal, cotton seed hulls 26%	
-19	Blue Grass Com. Co..... Lexington.	Same	
-20	Flavo Mill & Grain Co.. Somerset.	Cotton seed meal, cotton seed hulls 20%	Above guaranty in fiber.
-21	Geo. P. Taylor Co..... Somerset.	Same	
-23	Blue Grass Com. Co..... Lexington.	Same	Excess of hulls. Below guaranty in protein and above in fiber.
-21	Smith & Smith..... Shepherdsville.	Same	
-21	The Dorsel Co..... Newport.	Same	
-21	Goff & Bush..... Winchester.	Same	Inferior to guaranty. Below guaranty in protein.
-21	Blue Grass Com. Co..... Lexington.	Cotton seed meal, cotton seed hulls 30%	Above guaranty in fiber.
-22	Same	Cotton seed meal, cotton seed hulls 23%	
-21	George Keller	Same	Below guaranty in pro- tein.
-23	Newport. Blue Grass Com. Co.....	Same	
	Lexington.		Same.
-19	Farmers' Supply Co..... Calvert City.	Linseed meal, screenings oil feed	
-21	George Keller	Same	
-21	Newport. Berea College Dairy....	Same	
-21	Berea.	Same	
-21	Same	Same	
-21	Ritter-Hennings Co..... Louisville.	Flaxseed	

TABLE VI.—STRAIGHT FEEDS.

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis		
			Prot.	Fat	Fiber
2648-22	A-D Old Process Ground Oil Cake	Archer-Daniels Linseed Co..... Louisville, Ky.	33.38 34.00	6.59 6.00	8.7 10.00
432-19	Oil Meal	The Cincinnati Grain & Hay Co. Covington, Ky.	36.19 32.00	7.49 7.50	7.5 9.00
586-20	Old Process Oil Meal.....	The Early & Daniel Co..... Cincinnati, Ohio.	35.38 30.00	6.00 5.00	8.00 10.00
586-20	Same	Same	31.88 30.00	6.06 5.00	9.1 10.00
586-20	Same	Same	34.94 30.00	6.48 5.00	8.4 10.00
70-21	"H & B Co. Brand" Linseed Meal	Hirst & Begley Linseed Co.... Chicago, Ill.	37.88 34.00	7.18 6.00	7.2 9.00
1337-21	Oil Meal	Latonia Hay & Grain Co..... Covington, Ky.	31.50 30.81	6.12 6.90	9.3 10.00
2343-17	"Midland Brand" Pure Old Process Ground Linseed Cake	Midland Linseed Products Co.. Minneapolis, Minn.	37.94 32.00	7.55 5.00	6.9 9.50
2361-21	Same	Same	35.50 34.00	7.63 5.00	8.1 9.50
2361-21	Same	Same	33.88 34.00	7.52 5.00	8.99 9.50
2361-21	Same	Same	34.50 34.00	7.65 5.00	8.44 9.50
2361-21	Same	Same	33.63 34.00	7.91 5.00	8.8 9.50
133-21	"Nutritia" Old Process Linseed Oil Meal	The Nutritia Co..... Cincinnati, Ohio.	38.75 30.00	6.38 5.00	7.8 10.00
1399-22	"Major Brand" Linseed Oil Meal	Toledo Seed Co..... Toledo, Ohio.	33.50 33.00	6.57 5.00	8.8 10.00
Ground Oats.					
4262-22	Acme Ground Oats.....	Acme-Evans Co..... Indianapolis, Ind.	11.00 10.00	3.96 4.25	14.9 12.00
1091-21	Ground Oats	Edinger & Co..... Louisville, Ky.	12.44 10.40	5.27 4.10	9.2 9.44
4008-21	Same	H. P. Hawkins' Sons..... Paducah, Ky.	12.63 11.19	5.53 4.10	13.2 11.22
4185-22	Whole Ground Oats.....	Illinois Feed & Elevator Co.... Bloomington, Ill.	11.75 11.00	5.32 4.50	12.1 11.00
4185-22	Same	Same	12.50 11.00	4.93 4.50	11.4 11.00
4185-22	Same	Same	12.00 11.00	5.75 4.50	11.2 11.00
4185-22	Same	Same	10.50 11.00	4.44 4.50	13.8 11.00

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS.—VARIANCE FROM GUARANTY
23-22	Bardstown Milling Co... Bardstown.	Flaxseed	
22-19	Boone Co. Farm Bureau. Florence.	Same	
23-20	Eastern State Hospital.. Lexington.	Same	
23-20	The Dorsel Co..... Newport.	Same	
26-20	J. H. Baughman & Co... Stanford.	Same	
20-21	Blue Grass Comm. Co... Lexington.	Ground linseed cake	
27-21	Mfrs. Warehouse	Flaxseed	
23-17	C. S. Brent Seed Co... Lexington.	Same	
21-21	Oscar Farmer & Son.... Louisville.	Same	
21-21	George Keller	Same	
21-21	Berea College Dairy.... Berea.	Same	
21-21	Oscar Farmer & Sons.... Louisville.	Same	
23-21	M. D. Royse	Same	
29-22	J. H. Baughman & Co . Stanford.	Same	
22-22	Sandusky Bros. Harrodsburg.	Oats ground	Above guaranty in fiber.
21-21	Haydon Mill & Grain Co. Springfield.	Oats	Contains wild oats and corn product.
28-21	J. G. Fleming..... Paducah.	Same	Crushed oats containing a large per cent of wild oats, wheat and barley.
25-22	Boone Co. Farm Bureau. Burlington.	Whole ground oats	Above guaranty in fiber.
25-22	Boone Co. Farm Bureau. Florence.	Same	
25-22	Elmendorf Coal & Feed Co., Lexington.	Same	
25-22	H. J. Grieve..... Louisville.	Same	Below guaranty in protein and above in fiber. Inferior oats.

TABLE VI.—STRAIGHT FEEDS.

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis		
			Prot.	Fat	Fiber
4535-22	Ground Oats	George Keller	11.25	4.41	10.2
		Newport, Ky.	11.88	5.24	12.3
	Rice Bran.				
1798-22	Rice Bran	Aubrey & Co.	14.25	17.13	9.1
		Louisville, Ky.	12.00	12.00	12.0
3085-20	Rice Bran	Cincinnati Grain & Hay Co.	14.06	16.34	12.3
		Covington, Ky.	11.50	11.00	11.0
.....	Rice Bran	Wm. C. Dickinson & Co.	13.00	16.56	12.2
		St. Louis, Mo.	12.00	12.00	12.0
3035-21	Rice Bran	Kentucky Feed & Grain Co.	12.31	11.85	9.5
		Louisville, Ky.	12.00	12.00	12.0
	Rye Middlings.				
4462-22	Rye Middlings	J. F. Bertram	15.94	3.73	5.2
		Vanceburg, Ky.	14.00	3.00	6.0
1805-22	Rye Middlings	The Dewey Bros. Co.	16.38	3.73	5.7
		Blanchester, Ohio.	14.00	3.00	5.0
.....	Low Grade Rye Flour	Eagle Roller Mills.	15.88	2.93	3.9
		New Ulm, Minn.			
4480-22	Rye Middlings	J. H. Fedders & Sons.	16.50	3.80	5.5
		Covington, Ky.	15.19	3.50	5.0
4285-22	Rye Feed	Ferger Bros.	16.38	3.94	6.1
		Cincinnati, Ohio.	14.50	3.00	6.0
140-20	"Nutritia" Rye Middlings & Screenings	The Nutritia Co.	15.88	4.61	5.5
		Cincinnati, Ohio.	15.50	3.00	3.3
1605-19	Rye Middlings & Screenings	M. G. Rankin & Co.	15.75	3.45	5.2
		Milwaukee, Wis.	14.00	3.00	6.0
	Wheat Bran				
1646-19	Aubrey's Wheat Bran and Screenings	Aubrey & Co.	15.94	4.43	9.1
		Louisville, Ky.	14.50	3.70	9.1
1404-22	Wheat Bran and Screenings	Beaver Creek Mills.	14.50	4.23	6.1
		Glasgow, Ky.	14.95	4.19	9.1
1346-22	Wheat Bran and Screenings	The Blake Milling Co.	15.25	3.85	10.1
		Edwardsville, Ill.	15.50	4.25	10.0
3219-21	Wheat Bran	B. H. Britton.	16.75	4.70	7.1
		Harrodsburg, Ky.	15.50	4.00	9.1
362-22	Bran	Cadick Milling Co.	15.13	4.06	8.1
		Grandview, Ind.	14.50	4.00	10.1
1846-20	Wheat Bran and Screenings	Dahnke-Walker Milling Co.	14.50	4.60	9.1
		Union City, Tenn.	14.50	4.00	10.1

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
1-22	Herman Feldmann Newport.	Ground oats	Below guaranty in protein. Ground barley present.
1-22	Elizabethtown Milling Co Elizabethtown.	Rice bran	
6-20	Hudson & Farnau..... Lancaster.	Same	Contains rice hulls and ground grains. High in fiber.
....	Kentucky Feed & Grain Co., Louisville.	Same	
6-21	Bardstown Milling Co... Bardstown.	Same	Contains rice hulls, ground rice grains and foreign material.
2-22	Mfrs. Warehouse	Rye middlings	
5-22	N. D. Tabor..... Olive Hill.	Rye	Above guaranty in fiber.
....	Edwin C. Hawkins..... Paducah.	Low grade rye flour	Not labeled.
0-22	Mfrs. Warehouse	Rye middlings	
5-22	Stagg Bros. Co..... Vanceburg.	Rye	
0-20	Steely & Steely..... Williamsburg.	Rye middlings, ground rye screenings 3%	Above guaranty in fiber. Guaranty in fiber is too low for middlings.
5-19	Burg Kinner	Rye middlings, ground rye screenings 15%	
6-19	Hayes Bros. Hodgenville.	Wheat bran, ground wheat screenings 3%	
4-22	Glasgow Feed & Pro. Co. Glasgow.	Wheat bran, unground wheat screenings 15%	
6-22	Wm. Addams..... Cynthiana.	Wheat bran, ground wheat screenings 7%	
9-21	Mfrs. Warehouse	Wheat bran	Corn cockle present.
2-22	Mrs. H. G. Greer..... Brandenburg.	Same	Ground wheat screenings present.
6-20	C. E. Mooney..... Hickman.	Wheat bran, ground wheat screenings 4%	

TABLE VI.—STRAIGHT FEEDS.

Reg.No.	NAME OF FEED	MANUFACTURER	Analysis		
			Prot.	Fat	Fiber
266-21	Wheat Bran.....	The Early & Daniel Co..... Covington, Ky.	16.88 14.53	4.43 4.00	9.32 9.30
2581-20	"We-Kno" Wheat Bran.....	Oscar Farmer & Sons..... Louisville, Ky.	16.00 14.50	4.25 4.00	10.13 10.00
2993-20	Wheat Bran and Screenings.....	J. H. Fedders & Sons..... Covington, Ky.	16.00 14.50	3.98 3.50	9.37 10.00
3113-21	Wheat Bran	Flynn Bros. Co. St. Louis, Mo.	17.50 14.50	3.75 4.00	7.42 9.30
3279-21	Wheat Bran and Screenings.....	Font Hill Milling Co. Font Hill, Ky.	15.75 15.25	4.80 4.10	7.88 10.00
1473-22	Wheat Bran	Fuhrer-Ford Milling Co. Mt. Vernon, Ind.	14.38 14.50	4.08 3.50	10.29 9.85
.....	American Ace Pure Wheat Bran..	The Goerz Flour Mills Co. Newton, Kansas.	17.00 14.50	4.55 3.50	10.77 11.00
1355-22	Wheat Bran and Screenings.....	Kansas Flour Mills Co. Kansas City, Mo.	17.69 14.50	3.67 3.50	9.80 10.00
487-21	Palace Bran	Kehlror Flour Mills Co. St. Louis, Mo.	17.19 14.50	4.15 4.00	8.55 10.00
487-22	Palace Bran and Screenings.....	Same	16.88 14.50	4.33 4.00	9.60 10.00
1048-21	Wheat Bran and Screenings.....	The Larabee Flour Mills Corp.. Kansas City, Mo.	17.63 15.00	4.83 3.25	8.94 10.00
416-22	Wheat Bran	Lawrenceburg Milling Co. Lawrenceburg, Ind.	15.50 15.50	4.15 2.00	9.77 10.00
2354-22	Wheat Bran	Leitchfield Milling Co. Leitchfield, Ky.	15.38 15.65	4.03 4.10	7.11 9.70
1769-21	Wheat Bran and Screenings.....	Lewisburg Milling Co. Lewisburg, Ky.	15.88 15.19	4.45 4.94	6.33 6.33
797-22	Wheat Bran	S. M. Long & Sons..... Shelbyville, Ky.	13.38 17.06	3.72 4.15	10.84 9.50

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
-21	Fred Schuerman..... Newport.	Wheat bran	
-20	Eastern State Hospital.. Lexington.	Same	Unground wheat screenings present. High in fiber.
-20	Youtsey Bros. Alexandria.	Wheat bran, ground wheat screenings 5%	
-21	Hulen-Toops Co. Bowling Green.	Wheat bran, ground wheat screenings 8%	Wheat middlings present.
-21	Mfrs. Warehouse	Wheat bran, unground wheat screenings 4%	
-22	F. H. Vogel..... Henderson.	Soft winter wheat bran.....	High in fiber.
..	Farmers' Co-operative Store, Alexandria.....	Wheat bran	Not labeled with Kentucky tags.
-22	Ritter-Hennings Co. Louisville.	Wheat bran, ground wheat screenings 10%	
-21	A. B. Beal & Son..... Murray.	Pure wheat bran.....	
-22	T. F. Hart..... Henderson.	Pure wheat bran, ground wheat screenings 8%	
-21	Henry Paris	Wheat bran, ground wheat screenings 8%	
-22	Berea College Dairy..... Berea.	Hard wheat bran, ground wheat screenings 3%	
-22	Mfrs. Warehouse	Wheat bran	
-21	Summerville Bros. Lewisburg.	Wheat bran, ground wheat screenings 10%	
-22	Mfrs. Warehouse	Wheat bran	Adulterated with ground oat hulls. Ground wheat screenings present. Below guaranty in protein and above in fiber.

TABLE VI.—STRAIGHT FEEDS.

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis		
			Prot.	Fat	Fibre
1028-21	"Sonny-South" Wheat Bran.....	Louisville Milling Co. Louisville, Ky.	16.75 14.50	4.02 4.00	9.1 8.7
1028-22	Same	Same	16.25 14.50	4.33 4.00	10.1 8.7
3624-21	Wheat Bran	The Lynn Grove Milling Co. ... Lynn Grove, Ky.	14.31 16.50	4.16 4.50	7.3 7.3
3148-21	Winter Wheat Bran.....	Marion Milling Co. Marion, Ky.	15.38 15.00	3.18 4.00	6.9 9.3
3384-22	Albatross Bran and Screenings...	John F. Meyer & Sons Mlg. Co. St. Louis, Mo.	14.63 14.50	4.34 3.50	9.3 9.7
.....	Bran	New Prague Flour Mill..... New Prague, Minn.	16.38	4.93	9.3
3481-21	O-V Standard Feed.....	Ohio Valley Milling & Sup. Co. . Ashland, Ky.	17.31 18.38	5.09 5.77	8.3 8.3
1979-20	Wheat Bran	Philpot Mills..... Philpot, Ky.	15.88 15.25	4.72 4.07	7.3 8.2
1424-20	Wheat Bran	Richardson Milling Co. Horse Cave, Ky.	15.25 15.50	4.39 4.25	5.3 9.0
3497-21	Wheat Bran and Screenings.....	Saxony Mills	15.38	3.73	9.8
3256-21	Wheat Bran	St. Louis, Mo. South Fork Roller Mills..... Phil, Ky.	14.50 16.38 15.00	4.00 3.66 4.00	9.5 5.9 10.0
25-21	"Try Me" Bran and Screenings..	Sparks Milling Co. Alton, Ill.	16.38 15.00	3.72 3.50	8.3 10.0
979-21	Stanard-Tilton Milling Company's Wheat Bran and Screenings....	Stanard-Tilton Milling Co. St. Louis, Mo.	17.13 14.50	4.19 4.00	9.5 9.5
4280-22	Wheat Bran and Screenings.....	Willis Norton & Co. Topeka, Kans.	17.69 14.50	4.16 3.50	9.5 10.0
4609-22	Wheat Bran	Zula Milling Co. Zula, Ky.	16.63 15.00	5.48 4.25	8.0 8.4
Wheat Middlings					
301-20	Acme Middlings and Screenings..	Acme-Evans Co. Indianapolis, Ind.	16.25 16.50	4.44 4.50	6.7 7.5
301-20	Same	Same	16.38 16.50	4.35 4.50	7.2 7.5
301-21	Same	Same	16.38 16.50	3.97 4.50	7.3 7.5
301-21	Same	Same	14.81 16.50	3.81 4.50	7.9 7.5
301-21	Same	Same	15.75 16.50	5.11 4.50	6.5 7.5

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
5-21	Shepherdsville Roll. Mills Shepherdsville.	Pure wheat bran.....	
8-22	Roszell Bros. Lexington.	Same	High in fiber.
1-21	Mfrs. Warehouse	Wheat bran	Unground wheat screenings present. Below guaranty in protein. High in fiber.
1-21	Henry Paris..... Marion.	Winter wheat	Sample is mixed feed from wheat bran, wheat middlings, corn bran, and unground wheat screenings.
8-22	Fain & Lee..... Murray.	Soft wheat bran, ground wheat screenings 8%	
...	R. D. Robertson..... Mayfield.	Wheat bran	Not labeled according to law.
1-21	Big Blaine Produce Co... Blaine.	Wheat bran, ground wheat screenings 12%	Ground weed seeds present. Below guaranty in fat.
0-20	Mfrs. Warehouse	Wheat bran	Sample composed of wheat bran and wheat middlings.
4-20	E. M. Ford & Sons..... Cave City.	Same	Corn meal present.
1-21	L. L. Roberts..... Dawson Springs.	Wheat bran, ground wheat screenings 2%	
6-21	Mfrs. Warehouse	Wheat bran	Corn cockle present.
5-21	Paducah Elev. & Bonded Warehouse, Paducah....	Wheat bran, ground wheat screenings 2%	
9-21	Covington Bros. Murray.	Wheat bran, ground wheat screenings 5%	
0-22	Bradley Bros. Paducah.	Wheat bran, ground wheat screenings 8%	Unground wheat screenings present
0-22	Mfrs. Warehouse	Wheat bran	
1-20	Harvey Stout	Wheat middlings, ground wheat screenings 5%	
1-20	George P. Taylor Co. ... Burnside.	Same	
1-21	N. D. Tabor..... Olive Hill.	Same	Below guaranty in fat.
1-21	United Supply Co..... Lynch.	Same	Excess of ground wheat bran. Below guaranty in protein and fat. High in fiber.
1-21	W. T. Sistrunk & Co. ... Lexington.	Same	Below guaranty in protein.

TABLE VI.—STRAIGHT FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
301-22	Acme Middlings and Screenings..	Acme-Evans Milling Co. Indianapolis, Ind.	16.50 16.50	4.66 4.50
301-22	Same	Same	16.25 16.50	4.17 4.50
1973-22	Pure Wheat Shorts.....	The Acme Mills..... Hopkinsville, Ky.	16.75 16.50	4.83 5.00
2680-21	A-1 Trojan Farm Feed.....	The Allen & Wheeler Co. Troy, Ohio.	16.00 16.00	5.13 4.00
742-22	Trojan Middlings and Screenings.	Same	16.50 16.00	4.69 4.00
742-22	Same	Same	15.63 16.00	5.17 4.00
1005-18	William Tell Middlings and Screen- ings	The Ansted & Burk Co. Springfield, Ohio	16.69 14.50	4.15 4.00
1352-20	Wheat Middlings and Screenings.	Same	16.13 16.25	4.61 4.00
3663-21	Wheat Grey Shorts and Scourings.	Arnold-Madaus Milling Co. ... Sterling, Kans.	13.63 16.00	4.52 3.50
3663-21	Same	Same	16.63 16.00	4.27 3.50
3663-21	Same	Same	18.13 16.00	5.27 3.50
2753-21	Beech Nut Standard Middlings and Screenings	Ashland Trading Co. Ashland, Ky.	16.25 16.25	4.55 4.35
1648-20	Aubrey's Middlings and Screenings	Aubrey & Co. Louisville, Ky.	18.88 16.00	4.95 3.90
1648-20	Same	Same	19.50 16.00	4.66 3.90
.....	Same	Same	15.25	6.41
749-22	Shorts	The Auburn Mills..... Auburn, Ky.	16.63 16.25	4.94 4.50
3618-21	Pacer Shorts and Screenings.....	Aviston Milling Co. Aviston, Ill.	15.00 16.00	3.79 3.50
3618-22	Same	Same	15.63 16.00	5.53 3.50
3639-21	Aviston Gray Middlings.....	Same	17.63 16.00	6.30 3.50
3639-21	Same	Same	17.50 16.00	4.23 3.50
547-19	Wheat Middlings and Screenings.	J. J. Badenoeh Co..... Chicago, Ill.	17.00 15.00	5.56 5.00

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
2	Cole, Hughes & Co. Barbourville.	Wheat middlings, ground wheat screenings 5%	
2	John L. Hosman..... Morganfield.	Same	Excess of ground wheat bran. Ground wheat screenings with cheat and chaff present. Above guaranty in fiber.
12	Trigg Co. F. & Pro. Co.. Cadiz.	Wheat shorts	
1	The H. T. Hackney Co.. Middlesboro.	Wheat middlings, ground wheat screenings 3%	High in fiber.
2	Borders & Fannin..... Catlettsburg.	Same	
2	Bell Grocery Co..... Pineville.	Same	Excess of ground wheat bran. Below guaranty in protein and above in fiber.
8	J. W. Ramey..... Russell.	Wheat middlings, ground wheat screenings 2%	
0	Leslie Bailey..... Corinth.	Same	
1	Bradley Bros..... Paducah.	Wheat shorts, wheat scourings 8%	Below guaranty in pro- tein.
1	W. C. Keller..... Clarkson.	Same	
1	Bradley Bros. Paducah.	Same	Above guaranty in fiber
1	Miller-Elam Co..... Ashland.	Wheat middlings, ground wheat screenings 3%	Excess of ground wheat bran. Corn product and ground weed seeds present. Above guar- anty in fiber.
0	The Riverside Co..... Beattyville.	Wheat middlings, ground wheat screenings 3%	
0	Sam Nahm & Co..... Bowling Green.	Same	
.	L. Rains	Wheat Middlings	Not registered and lab- eled according to law.
2	Same	Wheat	
1	Williams Feed Co..... Pikeville.	Wheat shorts, ground wheat screenings 8%	Adulterated with ground wheat bran. Below guaranty in protein and high in fiber.
2	Ky. Feed & Seed Co..... Middlesboro.	Same	Excess of ground wheat bran present. Above guaranty in fiber.
1	Lanham-Terrell Gro. Co.. Corbin.	Same	
1	Stagg Bros. Co..... Vanceburg.	Same	
9	Williams Feed Co..... Pikeville.	Wheat middlings, ground wheat screenings 5%	Ground weed seeds pres- ent.

TABLE VI.—STRAIGHT FEED

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
638-21	Ballard's Kentucky Farm Feed and Screenings.....	Ballard & Ballard Co. Louisville, Ky.	16.00 16.00	3.59 4.00
638-21	Same	Same	16.63 16.00	4.17 4.00
638-22	Same	Same	15.13 16.00	4.25 4.00
638-22	Same	Same	15.88 16.00	3.72 4.00
3019-21	Flour Middlings	Cecilian Milling Co. Cecilia, Ky.	15.00 16.00	3.22 3.50
3019-22	Same	Same	13.50 16.50	2.46 3.50
2435-17	Shorts	Cedar Hill Roller Mills..... Cedar Hill, Tenn.	13.69 16.00	4.03 3.80
429-21	Wheat Middlings	Cincinnati Grain & Hay Co. Covington, Ky.	18.50 16.00	5.68 3.50
429-21	Same	Same	17.25 16.00	5.23 3.50
429-22	Same	Same	16.38 16.00	5.07 3.50
429-22	Same	Same	15.63 16.00	5.66 3.50
796-21	Shorts	Climax Roller Mills..... Shelbyville, Ky.	13.38 16.41	4.05 4.44
1534-21	Wheat Middlings and Screenings..	The Colton Bros. Co. Bellefontaine, Ohio.	16.38 16.00	4.83 4.50
2883-18	Wheat Shorts and Screenings....	The Consolidated Flour Mill Co. Hutchinson, Kans.	20.06 16.00	4.45 3.50
4150-22	Wheat Middlings and Screenings..	Dean Mill Co. Ava, Ill.	15.88 16.00	3.98 3.50
.....	Wheat Shorts	M. E. Derryberry Co. Nashville, Tenn.	17.13	4.64
356-21	Wheat Middlings and Screenings..	Diamond Mills	17.00	4.18
356-22	Same	Evansville, Ind.	16.00	5.00
		Same	14.50 16.00	3.90 5.00
2060-21	Grey Shorts and Screenings.....	Same	15.56 16.00	3.59 5.00

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS--VARIANCE FROM GUARANTY
21	Grigsby & Co. Bardstown.	Grey shorts, cleaned and ground wheat screenings 4½%.....	
21	Foley Bros. Pewee Valley.	Same	
22	J. S. Jones..... West Point.	Same	Below guaranty in pro- tein.
22	Elkhorn Coal Co. Fleming.	Same	
21	W. C. Keller..... Clarkson.	Flour middlings	Below guaranty in pro- tein.
22	Keller Bros. Clarkson.	Same	Below guaranty in pro- tein and fat.
17	Clarence Howard Russellville.	Wheat, bran, wheat middlings, corn bran, unground wheat screenings 5%.	Wheat bran and wheat screenings present.
21	Edgar Cochran Co..... West Liberty.	Wheat middlings	Below guaranty in pro- tein.
21	R. P. Coffman..... Walton.	Same	Ground wheat screenings containing cheat and weed seeds, present.
22	Mfrs. Warehouse	Same	Ground wheat screen- ings present.
22	Same	Same	
			Adulterated with ground wheat bran and ground wheat screenings.
			Below guaranty in protein and above in fiber.
21	R. A. Newton & Co. Shelbyville.	Wheat shorts	Ground wheat screen- ings and corn meal present.
21	The Arcade Store..... Barbourville.	Wheat middlings, ground wheat screenings 4%	
18	J. K. Butcher & Co. Paintsville.	Wheat shorts, ground wheat screenings 8%	
22	Fulton Mill Co. Fulton.	Wheat middlings, ground wheat screenings 5%	
..	Henderson & Hackney... Oakland.	Wheat shorts	Contains ground wheat screenings. Not reg- istered and labeled. Sold in violation of the law.
21	W. B. Davis Coal & Feed Store, Princeton	Wheat middlings, ground wheat screenings 5%	Adulterated with wheat bran. Excess of fiber.
22	Yates & Fowler..... Madisonville.	Same	Adulterated with ground wheat bran.
21	Hulen-Toops Co. Bowling Green.	Wheat shorts, ground wheat screenings 4%	Adulterated with ground wheat bran. Below guaranty in protein and fat and above in fiber.

TABLE VI.—STRAIGHT FEED

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
2060-22	Grey Shorts and Screenings.....	Diamond Mills	17.13	4.65
		Evansville, Ind.	16.00	5.00
2060-22	Same	Same	15.13	4.25
			16.00	5.00
868-21	Middlings	Dunlop Milling Co.	15.69	4.30
		Clarksville, Tenn.	16.00	4.25
868-21	Same	Same	15.13	4.51
			16.00	4.25
868-21	Same	Same	15.88	4.08
			16.00	4.25
868-21	Same	Same	16.63	4.48
			16.00	4.25
868-22	Same	Same	15.31	4.51
			16.00	4.25
868-22	Same	Same	15.06	4.42
			16.00	4.25
868-22	Same	Same	14.75	4.62
			16.00	4.25
1093-21	Wheat Middlings and Screenings..	Edinger & Co.	17.75	3.89
		Louisville	16.00	4.00
1093-21	Same	Same	17.50	4.20
			16.00	4.00
1093-21	Same	Same	17.13	4.58
			16.00	4.00
1093-22	Same	Same	18.50	4.56
			16.00	4.00
1093-22	Same	Same	16.13	6.09
			16.00	4.00
1093-22	Same	Same	17.00	6.11
			16.00	4.00
1093-22	Same	Same	15.50	6.48
			16.00	4.00
243-20	"We Kno'" Wheat Shorts and Screenings	Oscar Farmer & Sons.....	20.25	6.07
		Louisville, Ky.	16.00	4.00
243-20	Same	Same	16.75	5.24
			16.00	4.00

ANALYSES OF INSPECTORS' SAMPLES.

SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
Rea & Rice..... Earlington.	Wheat shorts, ground wheat screenings 4%.....	
John L. Hosman..... Morganfield.	Same	Below guaranty in protein.
J. V. Morrow..... Adairville.	Pure wheat middlings.....	Excess of ground bran. Low in protein and high in fiber.
L. D. McCarley & Co.... Auburn.	Same	Excess of ground wheat bran. Ground wheat screenings present. Below guaranty in protein and above in fiber.
J. V. Morrow..... Adairville.	Same	Excess of ground wheat bran. Below guaranty in protein and above in fiber.
W. L. Kimbrough & Son. Guthrie, Ky.	Same	
Summerville Bros. Lewisburg.	Same	Ground wheat screenings containing cheat, present. Below guaranty in protein.
W. L. Kimbrough & Son. Guthrie.	Same	Excess of ground wheat bran. Ground wheat screenings present. Below guaranty in protein and above in fiber.
R. A. Williams & Son... Trenton.	Same	Below guaranty in protein.
Amer. Coal & Feed Co... Louisville.	Wheat middlings, ground wheat screenings 3%	Adulterated with ground wheat bran. High in fiber.
Foley Bros. Pewee Valley.	Same	
W. F. Casteel..... Cecilia.	Same	
Shelbyville Feed & Produce Co., Shelbyville..	Same	
J. H. Williams..... London.	Same	Excess of ground wheat bran.
Shelbyville Feed & Produce Co., Shelbyville..	Same	Excess of ground wheat bran. Above guaranty in fiber.
Allen Co. Farm Bureau... Scottsville.	Same	Excess of ground wheat bran. Below guaranty in protein and high in fiber.
W. W. Shadburn..... Louisville.	Wheat shorts, ground wheat screenings 3%	Adulterated with ground wheat bran. Screenings contain weed seeds.
Same	Same	

TABLE VI.—STRAIGHT FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
3895-22	Lucky Hard Wheat Middlings and Screenings	Federal Mill & Elevator Co. Lockport, N. Y.	18.13 16.50	4.72 5.00
3682-21	Grey Wheat Shorts.....	J. H. Fedders & Sons..... Covington, Ky.	14.63 18.69	2.82 4.35
2046-21	Wheat Middlings	Same	16.63 16.00	4.45 3.50
2046-21	Same	Same	18.25 16.00	4.27 3.50
2046-21	Same	Same	18.69 16.00	4.47 3.50
2046-21	Same	Same	17.25 16.00	4.68 3.50
2046-21	Same	Same	16.75 16.00	4.89 3.50
2046-22	Same	Same	17.50 16.00	4.77 3.50
2046-23	Same	Same	15.63 16.00	5.55 3.50
2046-23	Same	Same	15.75 16.00	5.45 3.50
2046-23	Same	Same	15.88 16.00	5.67 3.50
2046-23	Same	Same	14.19 16.00	6.31 3.50
4179-22	Wheat Middlings and Screenings..	Ferger Bros. Cincinnati, Ohio	15.25 16.00	5.22 3.56
4179-22	Same	Same	16.25 16.00	5.00 3.56
4179-22	Same	Same	17.50 16.00	4.44 3.53
1662-22	Cracker Jack Wheat Shorts.....	Ferncliff Feed & Grain Co..... Louisville, Ky.	18.38 16.00	5.57 4.00
1662-22	Same	Same	16.50 16.00	4.00 4.00
1662-22	Same	Same	15.88 16.00	4.00 4.00
1662-22	Same	Same	16.75 16.00	4.00 4.00

ANALYSES OF INSPECTORS' SAMPLES.

SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
Louisa Flour & Feed Co. Louisa.	Hard wheat middlings, ground wheat screenings 10%.....	Low grade flour—not grey shorts. Below guaranty in protein and fat.
Boone Co. Farm Bureau. Burlington.	Wheat shorts (only).....	
Henry Kollman Latonia.	Wheat middlings	
Henry Deters Covington.	Same	Ground wheat screen- ings present.
Harry Hartke Covington.	Same	
E. L. Webster..... Walton.	Same	
G. C. Rothmann..... Independence.	Same	
Boone Co. Farm Bureau. Florence.	Same	
H. Rollmann Covington.	Same	Ground wheat screen- ings containing weed seeds, present.
Boone Co. Farm Bureau. Florence.	Same	Made from Durum wheat.
Same	Same	Made from Durum wheat. Ground wheat screenings containing ground weed seeds, present.
Mrs. Katherine Steenken Covington.	Same	Durum wheat middlings with excess of ground bran. Ground wheat screenings and ground weed seeds present. Below guaranty.
Staggs Bros. Co..... Vanceburg.	Wheat middlings, ground wheat screenings 11%	Adulterated with ground wheat bran. Below guaranty in protein and above in fiber.
Frost & Duvall..... Lexington.	Same	
J. F. Bertram..... Vanceburg.	Same	
G. G. Wood & Co. Carrollton.	Wheat shorts	
Ewing & Gray..... Eminence.	Same	
F. P. Spoonamore..... Stanford.	Same	
S. P. Greenwade..... Mt. Sterling.	Same	

TABLE VI.—STRAIGHT FEE

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
1662-22	Cracker Jack Wheat Shorts.....	Ferncliff Feed & Grain Co..... Louisville, Ky.	16.88 16.00	5.88 4.00
1662-22	Same	Same	15.38 16.00	5.67 4.00
1662-23	Same	Same	16.13 16.00	5.91 4.00
3641-22	Wheat Shorts and Screenings ...	Henry Fruechtenicht	17.38 16.00	5.47 4.00
		Louisville		
3641-21	Same	Fuhrer Ford Milling Co..... Mt. Vernon, Ind.	15.63 16.00	4.25 4.75
3641-22	Same	Same	15.00 16.00	4.67 4.75
3641-22	Same	Same	16.00 16.00	4.82 4.75
2863-21	Wheat Gray Shorts, Low Grade Flour, Wheat Bran and Screen- ings	General Commission Co..... Kansas City, Mo.	17.56 15.50	4.22 3.50
2863-22	Same	Same	16.44 15.50	3.86 3.50
4434-22	White Wheat Shorts.....	Same	17.00 16.00	3.55 3.56
1484-21	Spring Wheat Shorts and Screen- ings	Edward F. Goeke Co..... Evansville, Ind.	16.00 16.00	4.56 4.56
1484-22	Same	Same	16.94 16.00	5.37 4.56
2815-21	Wheat Shorts	Gordonsville Milling Co..... Gordonsville, Ky.	16.06 16.50	4.77 5.00
2815-22	Same	Same	16.50 16.50	4.67 5.00
2815-22	Same	Same	16.50 16.50	5.77 5.00
4524-22	Grafton Wheat Middlings and Screenings	The Grafton Flour Milling & Grain Elev. Co., Grafton, O.	16.69 16.50	5.00 5.00
1316-21	Wheat Middlings and Screenings..	Gwinn Bros. & Co..... Huntington, W. Va.	13.13 16.00	5.57 4.00
1316-21	Same	Same	16.63 16.00	5.67 4.00
1316-21	Same	Same	13.94 16.00	5.47 4.00
1316-21	Same	Same	17.69 16.00	5.00 4.00

ANALYSES OF INSPECTORS' SAMPLES.

SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
Whitesburg Ice & Feed Co., Whitesburg.	Wheat shorts	
J. W. Tolliver..... Fleming.	Same	Considerable oat product and ground weed seeds present.
J. A. Holbrook..... Whitesburg.	Same	Ground weed seeds present.
M. Pennington..... E. Bernstadt.	Wheat middlings, ground wheat screenings 3%	Excess of ground wheat bran. Above guaranty in fiber.
Fred H. Vogel..... Henderson.	Wheat shorts, ground wheat screenings 5%	Below guaranty in protein.
Franklin Elevator & Warehouse Co., Franklin.	Same	Below guaranty in protein.
F. H. Vogel..... Henderson.	Same	
H. P. Hawkins' Sons.... Paducah.	Wheat gray shorts, low grade flour, wheat bran, ground wheat screenings 8%.	
Dunmor Roller Mills.... Dunmor.	Same	No low grade flour present.
Edwin C. Hawkins..... Paducah.	White wheat shorts, ground wheat screenings 8%	
Summerville Bros. Lewisburg.	Spring wheat shorts, ground wheat screenings 3%	
Weaverton Milling Co... Henderson.	Same	Adulterated with ground wheat bran. Above guaranty in fiber.
J. W. McGehee..... Cleaton.	Wheat shorts	
C. S. Lyne, Jr. Russellville.	Same	
Mfrs. Warehouse	Same	
Denues & Cobern	Wheat middlings, ground wheat screenings 4%	
1 Nunnery & Smith..... Prestonsburg.	Wheat middlings, ground wheat screenings 2%	Adulterated with corn product. Below guaranty in protein. Inferior to guaranty.
1 Kentucky Wholesale Co. Pikeville.	Same	
1 H. H. Borders..... Catlettsburg.	Wheat middlings, ground wheat screenings 2%	Contains corn bran. Below guaranty in protein.
1 The Consolidation Coal Co., Van Lear.....	Same	Adulterated with ground wheat bran. Above guaranty in fiber.

TABLE VI.—STRAIGHT FEEDS

Reg.No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
1316-21	Wheat Middlings and Screenings.	Gwinn Bros. & Co..... Huntington, W. Va.	14.38 16.00	5.93 4.00
1316-21	Same	Same	17.38 16.00	4.46 4.00
1316-21	Same	Same	16.25 16.00	6.20 4.00
3488-22	Harsha Middlings	P. H. Harsha..... Portsmouth, Ohio.	16.63 16.00	4.59 3.50
4251-22	Gray Shorts	Edwin C. Hawkins..... Paducah, Ky.	16.25 16.00	4.13 3.50
4251-22	Same	Same	16.50 16.00	3.82 3.50
4251-22	Same	Same	17.50 16.00	4.91 3.50
4293-22	Shorts	Hickman Milling & Feed Co.. Hickman, Ky.	14.50 14.50	2.87 2.87
4293-22	Same	Same	15.38 14.50	4.26 2.87
3531-21	Canary Brand Shorts and Screenings	Chas. A. Hill & Co. Nashville, Tenn.	20.13 16.00	5.23 4.50
760-21	Middlings and Screenings.....	Hopkinsville Milling Co. Hopkinsville, Ky.	16.00 16.00	4.33 3.83
760-22	Same	Same	17.00 16.00	4.12 3.83
760-22	Same	Same	15.50 16.00	4.79 3.83
.....	Wheat Middlings and Screenings..	Hubbard Milling Co. Mankato, Minn.	16.75	5.34
505-21	Pure Wheat Middlings.....	Igleheart Bros. Evansville, Ind.	17.06 16.00	4.24 5.00
505-21	Same	Same	16.38 16.00	4.02 5.00
505-22	Same	Same	16.25 16.00	4.51 5.00
505-22	Same	Same	16.00 16.00	4.04 5.00
505-22	Same	Same	16.63 16.00	4.13 5.00
505-22	Same	Same	15.19 16.00	3.27 5.00

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
21	Mullins & Jackson..... Praise.	Wheat middlings, ground wheat screenings 2%.....	Corn bran present. Below guaranty in protein.
21	Pikeville Grocery Co.... Pikeville.	Same	Excess of ground wheat bran.
21	The Consolidation Coal Co., Van Lear.	Same	Sample is mixed wheat feed and screenings.
22	F. M. Nelson..... Concord.	Wheat middlings	Wheat screenings present.
22	Mfrs. Warehouse	Wheat shorts, ground wheat screenings 8%	
22	W. B. Ray Feed Co.... Princeton.	Same	
22	Mfrs. Warehouse	Same	
22	Mfrs. Warehouse	Wheat shorts, wheat flour.....	
22	C. A. Trusty..... Hickman.	Same	Above guaranty in fiber.
21	Park City Feed Store... Bowling Green.	Winter wheat shorts, ground wheat screenings 7%	
21	Chaplin & Cowherd..... Cadiz.	Wheat middlings, ground wheat screenings 4%	Adulterated with ground wheat bran. Excess of fiber.
22	G. Frank Walthal..... Canton.	Same	Above guaranty in fiber.
22	Trigg Co. Feed & Produce Co., Cadiz.....	Same	Excess of ground wheat bran. Below guaranty in protein and above in fiber.
..	United Supply Co..... Lynch.		Not registered and labeled according to law.
21	Lewisport Mill Co..... Lewisport.	Winter wheat middlings	Ground wheat screenings present.
21	Roszell Bros. Lexington.	Same	Ground wheat screenings present. Below guaranty in fat.
22	Smullen & Son	Same	Ground wheat screenings present.
22	Henderson Feed & Commission Co., Henderson.	Same	Ground wheat screenings present. Below guaranty in fat.
22	Trent & Bruner..... Irvington.	Same	Ground wheat screenings present. Below guaranty in fat.
22	J. W. Green & Co..... Mayfield.	Same	Excess of ground wheat bran. Ground wheat screenings present.

TABLE VI.—STRAIGHT FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
505-22	Pure Wheat Middlings.....	Igleheart Bros.	15.94	4.61
		Evansville, Ind.	16.00	5.00
.....	Blackhawk Standard Middlings..	International Milling Co.	15.00	5.35
		Minneapolis, Minn.		
1358-22	Gray Wheat Shorts and Screenings	Kansas Flour Mills Co.	19.88	4.41
		Kansas City, Mo.	16.00	3.50
488-21	Rex Middlings and Screenings....	Kehlror Flour Mills Co.	17.00	3.93
		St. Louis, Mo.	16.00	4.00
488-22	Rex Grey Hard Wheat Middlings	Same	17.31	3.87
	and Screenings.....		16.00	3.50
2305-21	Fancy White Middlings.....	Keister Milling Co.	13.69	3.53
		Huntington, W. Va.	16.00	5.00
2305-21	Same	Same	13.00	2.85
			16.00	5.00
2305-21	Same	Same	14.13	4.32
			16.00	5.00
2305-21	Same	Same	13.38	2.55
			16.00	5.00
2305-21	Same	Same	15.50	3.23
			16.00	5.00
2305-21	Same	Same	15.88	3.60
			16.00	5.00
2305-21	Same	Same	14.25	3.62
			16.00	5.00
2305-22	Same	Same	15.25	4.33
			16.00	5.00
194-21	Middlings and Screenings.....	George Keller	16.50	3.74
		Newport, Ky.	16.00	3.50
194-21	Same	Same	17.50	4.32
			16.00	3.50
194-22	Same	Same	16.50	5.39
			16.50	3.50
194-22	Same	Same	16.00	5.12
			16.00	3.50

ANALYSES OF INSPECTORS' SAMPLES.

SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
2 G. E. Mansfield..... Madisonville. Wheeler Grocery Co. ... Paintsville.	Winter wheat middlings..... Wheat middlings	Contains excess of ground wheat bran. Ground wheat screen- ings present. Not labeled in accordance with law.
2 Ritter-Hennings Co. Louisville.	Gray wheat shorts, ground wheat screenings 10%	
1 R. D. Robertson..... Mayfield.	Pure wheat middlings, ground wheat screenings 8%.....	
2 T. F. Hart..... Henderson.	Hard wheat middlings, ground wheat screenings 8%.....	
1 Queen & Turner..... Ashland.	Wheat middlings, low grade flour	Ground wheat screen- ings and weed seeds present. Below guar- anty in protein. In- ferior to guaranty.
1 Berry Bros. Ashland.	Same	
1 I. H. Fitzpatrick..... Prestonsburg.	Same	Adulterated with rice bran and hulls. Be- low guaranty in pro- tein.
1 Burnam Roberts Louisa.	Same	Contains ground screen- ings and weed seeds. Below guaranty in protein and fat.
1 Paintsville Grocery Co.. Paintsville.	Same	Contains ground wheat screenings. Low in protein.
1 Pikeville Grocery Co. ... Pikeville.	Same	Contains ground wheat screenings. Below guaranty in protein and above in fiber.
1 Nunnery & Smith..... Prestonsburg.	Same	Ground wheat screen- ings and weed seeds present. Below guar- anty in protein and fat.
2 Pure Food Grocery..... Prestonsburg.	Same	Contains ground wheat bran. Below guaranty in protein and above in fiber.
1 Fred Schuerman Newport.	Wheat middlings, ground wheat screenings 10%	
1 Mrs. Young & Son..... Ft. Thomas.	Same	Excess of ground wheat bran.
2 Consolidated Coal Co. ... McRoberts, Ky.	Same	Excess of ground wheat bran. Above guaran- ty in fiber.
2 Mfrs. Warehouse	Same	

TABLE VI.—STRAIGHT FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
194-22	Middlings and Screenings.....	George Keller Newport, Ky.	15.00 16.00	5.34 3.50
1334-21	Wheat Middlings	The Kenton Hay & Grain Co. .. Latonia, Ky.	17.00 16.00	4.25 4.25
1334-21	Same	Same	15.75 16.00	5.61 4.25
1572-21	Success Middlings	Kentucky Feed & Grain Co. .. Louisville, Ky.	17.31 16.00	4.56 4.50
1572-21	Same	Same	16.69 16.00	5.94 4.50
1572-21	Same	Same	17.75 16.00	6.48 4.50
1572-22	Same	Same	15.25 16.00	6.48 4.50
937-19	Pure Wheat Middlings.....	R. U. Kevil & Sons Princeton, Ky.	14.75 16.00	3.03 3.30
4261-22	Wheat Middlings and Screenings..	Lambert Milling Co. Kenova, W. Va.	16.75 16.00	5.50 4.50
4261-22	Same	Same	16.25 16.00	5.38 4.50
1393-19	Wheat Middlings	Latonia Hay & Grain Co. Latonia, Ky.	16.38 16.00	3.68 4.50
1393-22	Same	Same	15.75 17.63	5.67 4.65
1392-19	White Wheat Middlings.....	Same	14.00 14.00	2.75 3.70
414-21	Snowflake Middlings	Lawrenceburg Roller Mills.... Lawrenceburg, Ind.	18.13 16.00	4.97 4.50
1049-21	Wheat Shorts	The Larabee Flour Mills Corp.. Kansas City, Mo.	20.00 17.00	5.50 4.25

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
2-22	Millersburg Coal & Feed Co., Millersburg.....	Wheat middlings, ground wheat screenings 10%.....	Adulterated with ground wheat bran. Below guaranty in protein and above in fiber.
2-21	Mfrs. Warehouse	Wheat middlings	Excess of ground wheat bran. Ground wheat screenings and weed seeds present.
2-21	Same	Same	Adulterated with ground wheat bran and ground wheat screenings. Below guaranty in protein and above in fiber.
2-21	Woosley & Son	Wheat middlings	
2-21	Elizabethtown.	Same	
2-21	Shelbyville Feed & Produce Co., Shelbyville..	Same	
2-21	J. E. Buck.....	Same	
2-21	Stanford.	Same	
2-22	Boston Flour Mills.....	Same	Adulterated with ground wheat bran. Ground wheat screenings present. Below guaranty in protein and above in fiber.
2-22	Boston.	Same	
2-19	Mfrs. Warehouse	Same	Sample is low grade flour.
2-22	Borders & Fannin.....	Wheat middlings, ground wheat screenings 8%	Adulterated with ground wheat bran and weed seeds. Above guaranty in fiber.
2-22	Catlettsburg.	Same	
2-22	Cash Grocery	Same	Excess of wheat bran. Above guaranty in fiber.
2-22	Catlettsburg.	Same	
2-19	Mfrs. Warehouse	Wheat middlings	Excess of ground wheat bran.
2-22	Same	Same	Adulterated with ground wheat bran and ground wheat screenings. Below guaranty in protein and above in fiber.
2-19	Same	White wheat middlings.....	Sample is low grade flour.
2-21	Powell-Hackney Gro. Co.	Soft wheat middlings, ground wheat screenings 2%.....	Ground and unground wheat screenings present.
2-21	Hazard		
2-21	J. H. Wyan	Pure wheat shorts.....	
2-21	London.		

TABLE VI.—STRAIGHT FEEDS.

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis		
			Prot.	Fat	F
4159-22	Liberty Shorts	Liberty Mills..... Nashville, Tenn.	15.75 16.00	4.22 3.50	4.40 6.00
4123-22	White Cliff Wheat Middlings and Screenings	London Mill Co. London, Ohio.	16.06 16.00	4.38 3.50	6.10 7.00
4123-22	Same	Same	14.13 16.00	3.74 3.50	5.80 7.00
796-22	Shorts	S. M. Long & Sons..... Shelbyville, Ky.	14.75 16.41	4.61 4.44	6.40 7.50
796-22	Same	Same	13.50 16.41	4.04 4.44	8.20 7.50
1029-21	"Sonny South" Wheat Shorts and Screenings	Louisville Milling Co. Louisville, Ky.	17.25 16.00	4.51 4.00	7.30 7.50
1029-21	Same	Same	16.00 16.00	3.27 4.00	5.20 7.50
1029-22	Same	Same	17.00 16.00	3.79 4.00	6.00 7.50
1029-22	Same	Same	18.00 16.00	4.35 4.00	6.30 7.50
1029-22	Same	Same	16.63 16.00	4.08 4.00	7.10 7.50
1029-22	Same	Same	16.88 16.00	4.97 4.00	7.50 7.50
1029-22	Same	Same	18.50 16.00	4.57 4.00	7.60 7.50
1029-22	Same	Same	19.00 16.00	4.40 4.00	7.30 7.50
1029-22	Same	Same	18.88 16.00	4.66 4.00	7.90 7.50
1029-22	Same	Same	17.00 16.00	3.97 4.00	6.30 7.50
1029-22	Same	Same	16.75 16.00	4.11 4.00	7.80 7.50
1029-23	Same	Same	17.50 16.00	3.84 4.00	7.30 7.50
3622-21	Wheat Shorts and Screenings....	The J. C. Lysle Milling Co. Leavenworth, Kan.	16.63 16.00	3.77 4.50	6.20 5.50
3622-21	Same	Same	17.38 16.00	4.20 4.50	6.30 5.50
3599-21	Wheat Middlings	The Marion National Mill Co. . Marion, Ohio	16.25 16.00	4.78 3.50	6.90 7.50
3599-21	Same	Same	16.38 16.00	4.44 3.50	6.30 7.50

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
2	Mayhew & Gilbert..... Franklin.	Pure wheat shorts.	
22	Ashland Supply Co. Ashland.	Wheat middlings, ground wheat screenings 5%	
22	Louisa Flour & Feed Co. Louisa.	Same	Adulterated with wheat bran and corn meal. Below guaranty in protein.
22	Mfrs. Warehouse	Wheat shorts	Ground wheat screen- ings present. Below guaranty in pro- tein.
22	Mfrs. Warehouse	Same	Adulterated with oat hulls and ground wheat screenings. Be- low guaranty in pro- tein and above in fiber.
21	London Grocery Co. London.	Wheat shorts, ground wheat screenings 3%	
21	A. Schneider & Sons.... Louisville.	Same	
22	S. Adams & Son..... Torrent.	Same	
22	Kentucky River Coal & Feed Co., Irvine.....	Same	
22	Herndon-Carter Co. Buechel.	Same	
22	Harrell Bros. Rockport.	Same	
22	Roszell Bros. Lexington.	Same	
22	Coldstream Farm	Same	
22	Dunmor Roller Mills.... Dunmor.	Same	
22	Park City Milling Co.. Bowling Green.	Same	
22	Citizens Milling Co. Somerset.	Same	
23	Amos Yeager	Same	
21	The Eversole Co. London.	Wheat shorts, ground wheat screenings 8%	Below guaranty in fat and higher in fiber.
21	Bell Grocery Co. Pineville.	Same	Coarse wheat bran present.
21	Paintsville Grocery Co.. Paintsville.	Wheat middlings	
21	Louisa Flour & Feed Co. Louisa.	Same	

TABLE VI.—STRAIGHT FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
3599-21	Wheat Middlings	The Marion National Mill Co... Marion, Ohio.	17.88 16.00	5.04 3.50
2464-20	Milroy Wheat Middlings and Screenings	Milroy Milling Co. Milroy, Ind.	18.50 16.50	5.48 4.50
2464-21	Same	Same	17.69 16.50	4.74 4.50
3037-21	White Rose Shorts.....	Morganfield Roller Mills..... Morganfield, Ky.	15.25 16.75	3.54 4.19
3037-22	Same	Same	15.13 16.75	3.74 4.19
3037-22	Same	Same	14.38 16.75	4.20 4.19
3037-22	Same	Same	14.38 16.75	3.86 4.19
4636-22	Wheat Middlings	Murray Milling Co. Murray, Ky.	17.00 16.45	4.50 5.23
412-19	Wheat Middlings and Screenings..	National Feed Co. St. Louis, Mo.	16.88 16.00	3.97 4.00
412-19	Same	Same	15.38 16.00	6.44 4.00
.....	Middlings	New Prague Flour Mill..... New Prague, Minn.	17.50	4.89
141-21	Nutritia Winter Wheat Middlings and Screenings	The Nutritia Co. Cincinnati, Ohio	17.25 16.00	5.41 3.50
141-21	Same	Same	16.69 16.00	5.87 3.50
141-21	Same	Same	17.63 16.00	5.12 3.50
1888-21	Omileo Soft Winter Wheat Shorts	Same	14.63 15.50	2.91 3.07
3314-21	Grey Shorts and Screenings.....	Same	15.63 16.00	4.28 4.60
1156-22	Wheat Shorts and Screenings....	Phoenix Flour Mill..... Evansville, Ind.	15.50 16.00	4.79 4.00
607-19	Wheat Middlings and Screenings..	Geo. P. Plant Milling Co. St. Louis, Mo.	17.50 17.00	4.88 4.00
3355-22	"Circle P" Wheat Middlings....	Same	18.75 17.00	3.26 4.00

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
21	Louisa Flour & Feed Co. Louisa.	Wheat middlings	
20	A. A. Clay & Sons..... Indian Fields.	Wheat middlings, ground wheat screenings 10%	Excess of ground wheat bran. Ground wheat screenings present.
21	Consolidated Grocery Co. Olive Hill.	Same	
21	Mfrs. Warehouse	Wheat shorts	Below guaranty in pro- tein. Contains low grade flour.
22	R. W. Willingham	Same	Below guaranty in pro- tein and fat. Sample is low grade flour.
22	Mfrs. Warehouse	Same	Below guaranty in pro- tein. Sample is low grade flour.
22	H. C. Penticost..... Corydon.	Same	Below guaranty in pro- tein and fat. Contains low grade flour.
22	Mfrs. Warehouse	Wheat middlings	
49	Park Feed Co..... Paducah.	Wheat middlings, ground wheat screenings 5%	
19	Sweeney & Baxter..... Lawrenceburg.	Same	Adulterated with finely ground wheat bran. Some cockle present. Below guaranty in protein, high in fiber.
...	R. D. Robertson..... Mayfield.	Wheat middlings	Contains screening and weed seeds. Not labeled according to law.
21	H. E. Kidd..... Stearns.	Wheat middlings, ground wheat screenings 3%	
21	J. H. Johnson..... Jackson.	Same	Excess of ground wheat bran.
21	E. S. Willett & Co..... Maysville.	Same	Adulterated with ground wheat bran.
21	Mfrs. Warehouse	Soft winter wheat shorts.....	Sample is largely wheat flour. Lower in pro- tein than guaranty.
21	Mfrs. Warehouse	Grey shorts, ground wheat screen- ings 5%	Below guaranty in pro- tein.
22	Midget Milling Co. Providence.	Wheat shorts, ground wheat screenings 4½%	Below guarantee in pro- tein.
19	Franklin Elevator & Warehouse Co., Franklin.	Wheat middlings, ground wheat screenings 8%	
22	Covington Bros. & Co... Murray.	Wheat middlings	Below guaranty in fat.

TABLE VI.—STRAIGHT FEED

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
3355-22	"Circle P" Wheat Middlings....	Geo. P. Plant Milling Co..... St. Louis, Mo.	18.63 17.00	3.96 4.00
2860-22	Ideal White Middlings.....	R. C. Poage Milling Co..... Ashland, Ky.	16.00 16.63	3.66 4.90
4258-22	Randolph Shorts and Screenings..	Randolph Milling Co..... Baldwin, Ill.	18.00 17.40	5.44 4.90
4279-22	Middlings	Reichert Milling Co..... Freeburg, Ill.	16.75 16.00	5.02 4.00
1145-21	Alta Middlings	Russell-Miller Milling Co..... Minneapolis, Minn.	15.63 16.00	4.43 4.50
1145-21	Same	Same	17.88 16.00	6.40 4.50
1145-21	Same	Same	18.13 16.00	5.97 4.50
1145-21	Same	Same	17.31 16.00	6.50 4.50
3496-21	Choice Wheat Middlings.....	Saxony Mills	17.63	4.55
3750-21	Sunbeam Pure Soft Wheat Midd- lings and Screenings.....	Schultz-Baujan Co..... Beardstown, Ill.	17.38 16.00	5.03 3.50
549-21	Economy Wheat Shorts and Screenings	Southern Seed Co..... Louisville, Ky.	17.06 16.00	4.24 4.00
4465-22	Wheat Middlings and Shorts....	Sparks Milling Co..... Alton, Ill.	17.88 16.00	3.74 4.00
3758-21	Wheat Middlings	Staggs Bros. Co..... Vanceburg, Ky.	18.00 16.00	5.57 5.00
2696-20	Wheat Shorts	Stafford Milling Co..... Martin, Tenn.	15.75 17.11	3.99 4.41
4575-22	Wheat Middlings and Screenings..	G. W. Stamper & Co..... Vanceburg, Ky.	17.00 16.65	5.63 4.55
3874-21	White Wheat Shorts.....	Standard Roller Mills..... Cerulean, Ky.	17.00 17.00	5.15 5.15
980-21	Stanard-Tilton Milling Company's Wheat Middlings and Screen- ings	Stanard-Tilton Milling Co. Alton, Ill.	17.50 16.00	4.38 4.00
980-21	Same	Same	17.50 16.00	4.63 4.00
1834-22	Wheat Shorts	Star Milling Co..... Clinton, Ky.	17.50 16.50	7.05 4.75

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
22	F. M. Holcomb & Son... Murray.	Wheat middlings	
22	Mfrs. Warehouse	Wheat middlings, low grade flour	Below guaranty in protein and fat.
22	Graves Co. Farm Bureau Mayfield.	Wheat shorts, ground wheat screenings 5%	
22	Covington Bros. & Co. . Murray.	Wheat middlings	Above guaranty in fiber, but guaranty is too low.
21	Scottsville Produce Co.. Scottsville.	Wheat middlings, flour middlings	Adulterated with ground wheat bran. Ground wheat screenings present. Below guar- anty in protein and above in fiber.
21	Kentucky Feed & Grain Co., Louisville.	Same	
21	Blue Grass Commission Co., Lexington.	Same	No flour middlings present. Ground wheat screenings present.
21	J. C. Everett & Co. Maysville.	Same	
21	L. L. Roberts..... Dawson Springs.	Wheat middlings, ground wheat screenings 2%	
21	Hess & Racke	Wheat middlings, ground wheat screenings 3%	
21	The Riverside Co. Beattyville.	Wheat shorts, ground wheat screenings 3%	
22	Paducah Elev. & Bonded Warehouse, Paducah	Wheat middlings, wheat shorts..	
21	G. W. Stamper & Co. Vanceburg.	Wheat middlings	Contains ground weed seeds.
20	C. E. Mooney..... Hickman.	Wheat shorts	Ground wheat screen- ings present. Much below guaranty in pro- tein.
22	Mfrs. Warehouse	Wheat middlings, ground wheat screenings 10%	
21	Same	Wheat shorts	
21	E. N. Handy..... Latonia.	Wheat middlings, ground wheat screenings 5%	
21	Ruef Bros. Co. Covington.	Same	
22	Brummal Bros. Clinton.	Wheat shorts	

TABLE VI.—STRAIGHT FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
1312-20	Wheat Middlings and Screenings..	Tell City Flouring Mills..... Tell City, Ind.	15.13 16.00	4.43 4.00
1312-21	Same	Same	15.25 16.00	3.95 4.00
1312-21	Same	Same	14.88 16.00	3.35 4.00
1312-21	Same	Same	12.63 16.00	3.53 4.00
1312-22	Same	Same	14.50 16.00	3.96 4.00
1312-22	Same	Same	14.94 16.00	4.33 4.00
3890-22	Grey Middlings and Screenings..	Valier & Spies Milling Co. St. Louis, Mo.	17.88 16.00	4.77 3.50
2823-21	Wheat Middlings and Screenings..	The Washington Milling Co. ... Washington C. H., Ohio.	15.69 16.50	3.98 4.00
2436-21	Middlings	P. J. Weisenberger & Son..... Midway, Ky.	18.50 16.00	3.91 4.00
1930-21	Dixie Shorts	Winchester Roller Mills..... Winchester, Ky.	15.75 16.35	4.19 4.05
1930-21	Same	Same	14.75 16.35	4.34 4.05
1930-21	Same	Same	14.50 16.35	3.93 4.05
1930-21	Same	Same	14.88 16.35	4.55 4.05

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
20	W. M. Douthitt..... Hawesville.	Wheat middlings, red dog flour, ground wheat screenings 3%..	No red dog flour present. Corn bran and corn meal present. Below guaranty in protein.
21	Bozarth & Freeman..... Hawesville.	Same	Below guaranty in pro- tein.
21	Same	Same	Adulterated with corn meal. No red dog flour found. Below guar- anty in protein and fat. Inferior to guar- anty.
21	Same	Same	Same.
22	Joe Uloth	Same	Sample composed of wheat bran, wheat middlings, ground wheat screenings, corn bran and corn meal. Below guaranty in protein.
22	Douthitt & Freeman.... Hawesville.	Same	Unground wheat screen- ings, weed seeds, corn bran and corn meal present. No low grade flour found. Below guaranty in protein.
22	J. W. Green & Co. Mayfield.	Wheat middlings, ground wheat screenings 4%	
21	Ashland Iron & Min. Co. Ashland.	Wheat middlings, wheat screen- ings 5%	Below guaranty in pro- tein.
21	Mfrs. Warehouse	Wheat middlings	
21	J. R. Blake & Co. Jackson.	Wheat shorts	Below guaranty in pro- tein and high in fiber. Sample is mixed wheat feed and screenings.
21	H. E. Kidd..... Stearns.	Same	Coarse wheat bran, corn bran and ground wheat screenings present. Below guar- anty in protein. Not in accordance with guaranty.
21	S. Adams & Sons..... Torrent.	Same	Same.
21	Jonah Roark & Son..... Poor Fork.	Same	Contains ground wheat bran and unground wheat screenings. Be- low guaranty in pro- tein and above in fiber. Inferior to guaranty.

TABLE VI.—STRAIGHT FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
4090-22	Wheat Gray Shorts and Screenings	The Wichita Flour Mills Co. . . . Wichita, Kans.	18.75 16.00	4.32 3.50
Mixed Wheat Feeds				
76-22	Kentucky's Choice Pure Wheat Mixed Feed	The Acme Mills Hopkinsville, Ky.	15.88 15.00	4.34 4.00
328-21	Shipstuff	Adairville Milling Co. Adairville, Ky.	15.13 16.05	4.98 4.55
328-22	Same	Same	15.50 16.05	5.41 4.55
741-22	Trojan Mixed Wheat Feed and Screenings	The Allen & Wheeler Co. Troy, Ohio.	16.88 15.50	4.66 4.00
741-22	Same	Same	15.75 15.50	4.81 4.00
1351-23	Mixed Wheat Feed and Screenings	The Ansted & Burk Co. Springfield, Ohio.	15.50 15.50	4.12 4.00
4297-22	Mixed Wheat Feed	Ashbyburg Flour Mills Ashbyburg, Ky.	15.56 15.50	4.32 4.25
1647-21	Aubrey's Mixed Wheat Feed and Screenings	Aubrey & Co. Louisville, Ky.	17.19 15.50	4.93 3.80
1647-22	Same	Same	17.25 15.50	4.48 3.80
1647-21	Same	Same	18.50 15.50	4.75 3.80
1647-21	Same	Same	19.00 15.50	5.48 3.80
1647-22	Same	Same	17.25 15.50	5.13 3.80
4349-22	Results Mixed Wheat Feed and Screenings	Aviston Milling Co. Aviston, Ill.	15.75 15.50	4.17 4.00
637-22	Ballards' Mixed Wheat Feed and Screenings	Ballard & Ballard Co. Louisville, Ky.	15.25 15.50	4.58 4.42
2038-21	Blanton Mixed Wheat Feed and Screenings	Blanton Milling Co. Indianapolis, Ind.	15.88 15.70	4.00 3.70
2038-21	Same	Same	15.25 15.70	4.66 3.70
1934-21	Shipstuff	Blue Grass Milling Co. Campbellsburg, Ky.	12.50 15.75	3.27 4.46
1934-21	Same	Same	14.38 15.75	4.70 4.46
1799-19	Mill Run Feed	J. K. Butcher & Co. Paintsville, Ky.	18.31 15.50	5.03 4.50

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
22	Morehead Grocery Co. . . Morehead, Ky.	Wheat gray shorts, ground wheat screenings 5%	
22	Buck & Son Guthrie.	Wheat bran, wheat shorts	Ground wheat screen- ings present.
21	Mfrs. Warehouse	Wheat bran, wheat middlings . . .	Below guaranty in pro- tein.
22	Same	Same	Same.
22	Morgan & Crenshaw Georgetown.	Wheat bran, wheat middlings, ground wheat screenings 3% . .	
22	Borders & Fannin Catlettsburg.	Same	Above guaranty in fiber.
23	Ashland Supply Co. Ashland.	Wheat bran, wheat middlings, ground wheat screenings 2% . .	Same.
22	Corum Bros. Madisonville.	Wheat bran, wheat shorts	
21	Lewis Wholesale Co. Whitesburg.	Wheat bran, wheat shorts, ground wheat screenings 3%	
22	Elkins & Kimmell Greenville.	Same	
21	Lessenberry & Jones Glasgow.	Same	
21	Shepherdsville Rol. Mills Shepherdsville.	Same	
22	J. E. M. Milling Co. Frankfort.	Same	
22	Kentucky Feed & Seed Co., Middlesboro	Wheat bran, wheat middlings, ground wheat screenings 8% . .	Above guaranty in fiber. Excess ground wheat bran present.
22	J. S. Jones West Point.	Wheat bran, wheat middlings, cleaned and ground wheat screenings 2¼%	Above guaranty in fiber.
21	Woosley & Son Elizabethtown.	Wheat bran, wheat middlings. unground wheat screenings 4%	
21	Laurel Grocery Co. East Bernstadt.	Same	Below guaranty in pro- tein.
21	Mfrs. Warehouse	Wheat bran, wheat middlings . . .	Below guaranty in pro- tein. Low grade flour present.
21	Same	Same	Below guaranty in pro- tein and above in fiber.
19	Mfrs. Warehouse	Wheat bran, wheat middlings . . .	This feed is good clear middlings.

TABLE VI.—STRAIGHT FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
363-20	Mixed Wheat Feed.....	Cadick Milling Co.	16.00	4.47
		Grandview, Ind.	15.50	4.00
363-22	Same	Same	15.00	4.16
			15.50	4.00
363-22	Same	Same	14.75	4.45
			15.50	4.00
363-22	Same	Same	15.25	4.24
			15.50	4.00
3669-21	Cameron's Shipstuff	Cameron's Mill	14.88	4.05
		Carrollton, Ky.	16.03	4.13
2698-21	Shipstuff and Screenings.....	Cannellton Flour Mills.....	14.50	3.68
		Cannellton, Ind.	16.25	4.18
2698-22	Same	Same	14.00	3.91
			16.25	4.18
2698-22	Same	Same	14.13	4.44
			16.25	4.18
1715-21	Mixed Wheat Feed.....	Carey Bros.	14.63	4.28
		Willisburg, Ky.	15.50	4.50
2326-21	Wheat Bran and Shorts.....	Cate Milling Co.	14.56	7.48
		Hopkinsville, Ky.	16.00	4.50
2641-21	Shipstuff	Cascade Milling Co.	15.50	4.29
		Bronston, Ky.	15.50	4.00
430-21	Mixed Wheat Feed and Screenings	The Cincinnati Grain & Hay Co.	16.75	4.36
		Covington, Ky.	15.50	4.25
430-22	Same	Same	16.63	5.00
			15.50	4.25
2227-21	Shipstuff and Screenings.....	R. L. Collins & Son.....	15.38	4.33
		Crittenden, Ky.	15.50	4.66
3614-21	Mixed Wheat Feed.....	Community Roller Mills.....	15.25	4.49
		Calhoun, Ky.	16.10	4.47
3614-21	Same	Same	14.88	4.62
			16.10	4.47
17-13	Shipstuff	Chas. Cummins	14.38	4.01
		Cummins, Ky.	15.37	3.67
869-22	Mixed Wheat Feed.....	W. J. Dossey & Sons.....	16.63	4.94
		Fountain Run, Ky.	15.75	4.46
268-21	Mixed Wheat Feed.....	Early & Daniel Co.	16.88	4.06
		Covington, Ky.	15.50	4.00

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
20	J. H. Waugh..... Crestwood.	Wheat bran, wheat shorts.....	
20	Lancaster-Smith Seed Co. Owensboro.	Same	Below guaranty in protein.
22	L. E. Chapman. Owensboro.	Same	Same.
22	J. H. Cain	Same	
21	Brandenburg. Mfrs. Warehouse	Wheat bran, wheat middlings...	Below guaranty in protein. Inferior to guaranty.
21	J. W. Quisenberry..... Hawesville.	Middlings, red dog flour, ground wheat screenings 5%.....	Below guaranty in protein. Corn meal present.
22	A. D. Ashcraft..... Irvington.	Same	Below guaranty in protein and fat. Corn bran and corn meal present.
22	S. F. Swihart..... Hawesville.	Same	Below guaranty in protein and fat. Corn bran and corn meal present.
21	Lake Bros.	Wheat bran, wheat middlings...	Below guaranty in protein.
21	Springfield. Q. F. Combs..... Pembroke.	Wheat bran, wheat shorts.....	Below guaranty in protein. Adulterated with corn bran and corn meal.
21	Mfrs. Warehouse	Wheat bran wheat middlings....	
21	Leslie Bailey	Wheat bran, wheat middlings, ground wheat screenings 6%..	
22	Corinth. Alva West & Co.	Same	
21	Maysville. Mrs. Mary C. McClure ..	Wheat bran, wheat middlings, un- ground wheat screenings 2%..	Corn bran present.
21	Crittenden. A. C. Harrison.....	Wheat bran, wheat middlings...	Below guaranty in protein.
21	Calhoun.		
21	Mfrs. Warehouse	Same	Same.
7-13	Same	Wheat bran, middlings.....	Below guaranty in protein.
22	N. Y. Landrum & Co. ...	Wheat bran, wheat shorts.....	
21	Tompkinsville. Fred Sauerbeck	Wheat bran, middlings.....	Unground wheat screenings present.
21	Newport.		

TABLE VI.—STRAIGHT FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
268-22	Mixed Wheat Feed.....	Early & Daniel Co..... Covington, Ky.	16.75 15.50	5.64 4.00
583-21	Same	Same	15.88 15.50	4.59 4.00
583-22	Same	Same	16.00 15.50	4.63 4.00
583-22	Same	Same	16.69 15.50	5.08 4.00
888-22	Shipstuff	Farmers' Milling Co..... Beaver Dam, Ky.	14.50 15.50	3.60 4.25
3254-20	Shipstuff and Screenings.....	Farmers' Milling Co..... Russell Springs, Ky.	14.75 15.50	3.77 4.00
1556-22	Mixed Wheat Feed and Screenings	Farmers' & Merchants' Milling Co., Brooksville, Ky.	16.13 15.50	5.13 4.25
1556-22	Same	Same	15.19 15.50	4.66 4.25
3649-22	Mixed Wheat Feed and Screenings	Flynn Bros. Grain & Feed Co. .. St. Louis, Mo.	16.25 15.50	4.31 4.00
3649-22	Same	Same	16.50 15.50	3.94 4.00
3291-21	Mixed Wheat Feed.....	Fountain Run Milling Co..... Fountain Run, Ky.	15.50 15.75	4.10 4.35
3755-21	Fruechtenicht's Feed and Screen- ings	Henry Fruechtenicht	16.88 16.00	5.49 4.00
2380-22	Shipstuff	Germantown Milling Co..... Germantown, Ky.	14.69 15.75	4.26 4.25
3704-21	Mixed Wheat Feed.....	J. D. Gossett	15.25 15.75	4.28 4.51
3273-21	Shipstuff	Greasy Creek Milling Co..... Jamestown, Ky.	14.75 16.00	4.28 4.55
2375-21	Wheat Bran, Middlings and Screenings	Hardin Milling Co..... Hardin, Ky.	14.75 15.75	4.51 4.35
3163-22	Mixed Wheat Feed and Screen- ings	Edwin C. Hawkins..... Paducah, Ky.	16.63 15.50	4.11 4.00
3705-21	Wheat Mixed Feed.....	Haydon Mill & Grain Co..... Springfield, Ky.	15.00 15.71	4.43 4.45
1858-21	Pure Bran and Shorts.....	Horse Cave Mills..... Horse Cave, Ky.	16.38 15.50	4.06 4.25

ANALYSES OF INSPECTORS' SAMPLES.

SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
2 J. A. Anderson..... Covington.	Wheat bran, middlings.....	Ground wheat screenings, containing ground weed seeds, present.
1 Tom Jameson & Son.... Beattyville.	Same	
2 Hill Congleton & Son... Beattyville.	Same	Excess of wheat bran. Above guaranty in fiber.
2 Same	Same	Ground wheat screenings and weed seeds present.
2 C. B. Carden & Co. Hartford.	Wheat bran, wheat middlings...	Below guaranty in protein and fat. Unground wheat screenings present.
0 Mfrs. Warehouse	Wheat bran, wheat middlings, ground wheat screenings 6%..	Below guaranty in protein.
2 Same	Wheat bran, middlings, unground wheat screenings 4%.....	
2 Same	Wheat bran, wheat middlings, ground wheat screenings 1%..	
2 Hulen-Toops Co. Bowling Green.	Wheat bran, wheat middlings, ground wheat screenings 8%..	
2 Louis Cohen	Same	
21 N. Y. Landrum & Co. ... Tompkinsville.	Wheat bran, wheat middlings...	
21 Mfrs. Warehouse	Wheat middlings, fine ground wheat bran, ground wheat screenings 6%	Excess of ground wheat bran. Screenings contain ground weed seeds.
22 Mfrs. Warehouse	Wheat bran, shorts, middlings...	Below guaranty in protein.
21 Mfrs. Warehouse	Wheat bran, wheat middlings...	Below guaranty in protein.
21 Same	Same	Below guaranty in protein and above in fiber. Below standard of shipstuff. Corn cockle present.
21 Mfrs. Warehouse	Wheat bran, wheat middlings, ground wheat screenings 2%..	Below guaranty in protein.
22 J. R. Brandon..... Benton.	Wheat bran, wheat middlings, unground wheat screenings 5%	
21 Lebanon Milling Co. Lebanon.	Wheat bran, wheat middlings...	
21 Hulen-Toops Co. Munfordville.	Wheat bran, shorts	Contains corn bran.

TABLE VI.—STRAIGHT FEED

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
506-21	Mixed Wheat Feed and Screenings	Igleheart Bros. Evansville, Ind.	16.25 15.50	4.00 4.50
1841-15	Shipstuff and Screenings.....	Kearns & Reese..... Jamestown, Ky.	15.31 15.50	4.42 4.25
2834-21	Mixed Wheat Feed and Screenings	George Keller Newport, Ky.	17.13 15.50	4.13 4.50
2834-21	Same	Same	17.38 15.50	4.09 4.50
2834-21	Same	Same	16.38 15.50	4.13 4.50
1050-22	Mixed Wheat Feed and Screenings	Larabee Flour Mills Corporation Kansas City, Mo.	17.38 16.00	5.08 3.75
1050-22	Same	Same	15.25 16.00	4.35 3.75
1030-21	"Sonny South" Wheat Mixed Feed and Screenings.....	Louisville Milling Co. Louisville, Ky.	17.25 15.50	4.70 4.00
1030-21	Same	Same	17.13 15.50	4.25 4.00
1030-22	Same	Same	17.50 15.50	3.94 4.00
1030-22	Same	Same	17.13 15.50	4.57 4.00
1030-22	Same	Same	17.63 15.50	4.54 4.00
1030-23	Same	Same	17.00 15.50	4.51 4.00
2508-21	Mill Run Mixed Wheat Feed and Screenings	Magnolia Flour Mills..... Maysville, Ky.	15.13 16.38	3.77 4.25
4482-22	Albatross Mixed Wheat Feed....	John F. Meyer & Sons Milling Co., St. Louis, Mo.	15.00 15.50	4.52 3.50
2463-22	Milroy Mixed Wheat Feed and Screenings	Milroy Milling Co. Milroy, Ind.	15.38 16.50	4.79 4.00
1485-21	Shipstuff	Nolin Milling Co. Nolin, Ky.	14.75 15.50	4.54 4.50
2794-20	Mixed Wheat Feed and Screenings	Oakland Milling Co. Oakland, Ky.	14.88 15.50	4.17 4.25
2090-22	Mixed Wheat Feed.....	Owensboro Milling Co. Owensboro, Ky.	16.75 15.50	4.43 4.15
4519-22	"Omilco" Wheat Feed.....	Same	15.75 15.50	4.38 3.92
1902-22	"Omilco" Soft Winter Mixed Wheat Feed.....	Same	14.81 16.00	4.41 4.00
3129-22	Parson's Mixed Wheat Feed....	Pendleton Flour Mills..... Falmouth, Ky.	15.13 15.87	4.09 4.33

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
1	Young & Bishop..... Providence.	Wheat bran, wheat middlings, ground wheat screenings 1%..	
5	Bernard Bros. Jamestown.	Wheat bran, middlings, ground wheat screenings 5%.....	
1	A. J. Minshall..... Fort Thomas.	Ground wheat bran, wheat mid- dlings, ground wheat screen- ings 10%	
1	Huntzman Bros. Newport.	Same	
1	E. T. Oldham..... Stamping Ground.	Same	Unground wheat screen- ings present.
2	Lessenberry & Jones.... Glasgow.	Wheat bran, wheat shorts, mill run screenings 8%.....	No screenings found.
2	R. D. Robertson..... Mayfield.	Same	Below guaranty in pro- tein.
1	H. T. Edwards..... Campbellsville.	Wheat bran, wheat shorts, ground wheat screenings 3%.....	
1	J. A. Bennett..... Taylorsville.	Same	Contains unground wheat screenings.
2	J. H. Grieve..... Louisville.	Same	
2	Roszell Bros. Lexington.	Same	Above guaranty in fiber.
2	Stearns Coal & Lum. Co.. Stearns.	Same	Above guaranty in fiber. Excess wheat bran.
2	C. D. Miller..... Buechel.	Same	Same.
1	Kentucky Feed Co. Flemingsburg.	Wheat bran, wheat middlings, ground wheat screenings 3½%	Very little middlings present. Below guar- anty in protein and fat and above in fiber.
2	Fain & Lee..... Murray.	Soft wheat bran, soft wheat mid- dlings, ground wheat screen- ings 8%	Below guaranty in pro- tein.
2	J. C. Everett & Co. Maysville.	Wheat bran, wheat middlings, ground wheat screenings 10%.	Below guaranty in pro- tein. Unground wheat screenings present.
1	J. F. Williams & Son.... Elizabethtown.	Wheat bran, wheat shorts.....	Below guaranty in pro- tein.
0	Farmers Union Sup. Co.. Bowling Green.	Wheat bran, wheat shorts, ground wheat screenings 15%.....	Below guaranty in pro- tein. Corn bran present.
2	A. D. White & Co. Hartford.	Soft winter wheat bran, soft winter wheat middlings.....	
2	Dexter & Vincent..... Centertown.	Wheat bran, wheat shorts, red dog flour	Above guaranty in fiber.
2	Corum Bros. Madisonville.	Winter wheat bran and shorts...	Below guaranty in pro- tein.
2	Mfrs. Warehouse	Wheat bran, wheat middlings...	Same.

TABLE VI.—STRAIGHT FEEDS

Reg.No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
1809-20	Ideal Wheat Feed.....	T. L. Penn.....	15.75	4.47
		Kevil, Ky.	16.72	4.77
1158-22	Mixed Wheat Feed and Screenings	Phoenix Flour Mills.....	15.63	3.50
		Evansville, Ind.	15.50	4.00
608-19	Mixed Wheat Feed and Screenings	Geo. P. Plant Milling Co. ...	16.13	4.29
		St. Louis, Mo.	16.00	4.00
3781-21	Winter Wheat Feed.....	R. C. Poage Milling Co.	15.69	4.37
		Ashland, Ky.	15.50	5.00
1212-19	Buckeye Mixed Wheat Feed.....	The Quaker Oats Co.	16.88	5.52
		Chicago, Ill.	15.50	4.50
1966-22	O-Joy	Randolph Milling Co.	15.25	5.38
		Bandana, Ky.	15.75	4.50
484-22	Wheat Bran and Middlings.....	B. E. Roberts & Son.....	15.69	4.44
		Mill Springs, Ky.	15.50	4.00
3272-21	Shipstuff and Screenings.....	Russell Springs Roller Mills....	14.00	4.17
		Russell Springs, Ky.	15.50	4.00
3420-21	Mixed Wheat Feed.....	Salt Lick Roller Mills.....	16.25	5.01
		Salt Lick, Ky.	15.93	4.39
3752-22	Mixed Wheat Feed and Screenings	Schultz-Baujan & Co.	16.13	5.00
		Beardstown, Ill.	15.50	3.50
1064-10	Shipstuff	Snow Milling Co.	16.63	5.00
		Snow, Ky.	14.75	4.62
1716-22	Mixed Wheat Feed.....	South Somerset Mills.....	16.56	5.23
		Somerset, Ky.	15.50	4.25
556-22	Economy Wheat Mixed Feed and Screenings	Southern Seed Co.	17.25	4.33
		Louisville, Ky.	15.50	4.00
556-22	Same	Same	17.25	5.02
			15.50	4.00
2729-22	Standard Wheat Feed and Screenings	Same	18.50	4.20
			15.50	4.00
2729-22	Same	Same	14.88	6.64
			15.50	4.00
2729-22	Same	Same	16.13	5.61
			15.50	4.00
2729-22	Same	Same	15.50	4.06
			15.50	4.00
2729-22	Same	Same	16.75	6.54
			15.50	4.00
24-20	Try Me Mixed Wheat Feed and Screenings	Sparks Milling Co.	17.75	3.99
		Alton, Ill.	16.00	3.50
24-21	Same	Same	17.13	3.93
			16.00	3.50
24-21	Same	Same	18.06	4.09
			16.00	3.50

ANALYSES OF INSPECTORS' SAMPLES.

SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
Mfrs. Warehouse	Wheat bran, middlings	Below guaranty in protein and above in fiber.
Midget Milling Co. Providence.	Wheat bran, wheat shorts, ground wheat screenings 5%	
Franklin Elev. & Warehouse Co., Franklin...	Wheat bran, wheat middlings, ground wheat screenings 8% ..	
B. L. Hughes..... Lackey.	Wheat bran, wheat middlings, ground wheat screenings 5% ..	
Humlong & Wheat..... Germantown.	Wheat bran, wheat middlings, ground wheat screenings 2% ..	Oat groats and oat hulls present.
R. Graham	Wheat bran, wheat shorts.....	Below guaranty in protein.
Grahamville.		
Mfrs. Warehouse	Wheat bran, wheat middlings...	
Same	Wheat bran, wheat shorts, un- ground wheat screenings 4% ..	Below guaranty in protein.
Allen Points	Wheat bran, wheat shorts.....	
Salt Lick.		
Boone Co. Farm Bureau Florence.	Wheat bran, wheat middlings, wheat screenings 3%	Above guaranty in fiber.
Mfrs. Warehouse	Bran, shorts, middlings.....	Chaff and corn cockle present.
Flavo Mill & Grain Co. . Somerset.	Wheat bran, shorts.....	
Watts, Laws & Preston.. Perryville.	Wheat bran, wheat middlings, ground wheat screenings 3% ..	
Taylor County Milling Co Campbellsville.	Same	Above guaranty in fiber
The Riverside Co. Beattyville.	Wheat bran, wheat middlings, ground wheat screenings 3% ..	
H. C. Terhune..... Talmage.	Wheat shorts, wheat bran, ground wheat screenings 3%	Below guaranty in protein and above in fiber. Inferior product.
May & Boyle..... Cloverport.	Same	Above guaranty in fiber. Considerable weed seeds present.
W. A. Burkhart..... Vine Grove.	Same	
The Riverside Co	Same	Ground weed seeds present.
Beattyville.		
Owen & Ducker..... Butler.	Wheat bran, middlings, shorts, ground wheat screenings 2% ..	
Paducah Elev. & Bonded Warehouse, Paducah	Same	Unground wheat screenings present.
F. M. Holcomb..... Murray.	Same	

TABLE VI.—STRAIGHT FEED

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
24-22	Try Me Mixed Wheat Feed and Screenings	Sparks Milling Co.	16.75	4.00
		Alton, Ill.	16.00	3.50
981-19	Stanard-Tilton Milling Company's Mixed Wheat Feed and Screenings	Stanard Tilton Milling Co. ...	17.63	4.90
		Alton, Ill.	14.50	4.00
2248-21	Bran and Shipstuff	Adam Temple & Son	16.25	4.80
		Maxon Mills, Ky.	15.50	4.90
2248-21	Same	Same	14.63	4.00
			15.50	4.80
2372-22	Purity Wheat Feed and Screenings	John Wade & Sons, Inc.	16.50	3.00
		Memphis, Tenn.	15.50	3.50
3643-22	Zabel Milling Company's Mixed Wheat Feed and Screenings....	Zabel Milling Co.	14.69	5.40
		New Albany, Ind.	16.50	4.50
459-22	Shipstuff	Ziliak & Schafer Milling Co. ...	16.88	4.80
		Evansville, Ind.	16.30	4.50
459-22	Same	Same	17.38	5.10
			16.30	4.50
459-22	Same	Same	16.00	4.10
			16.30	4.50
459-22	Shipstuff and Screenings.....	Same	16.75	5.40
			16.30	4.50
	Miscellaneous Mixed Wheat Feeds			
299-20	Acme Feed	Acme-Evans Co.	17.13	4.20
		Indianapolis, Ind.	16.50	4.00
299-21	Same	Same	15.75	4.90
			16.50	4.00
299-21	Same	Same	16.00	4.80
			16.50	4.00
299-21	Same	Same	16.38	4.20
			16.50	4.00
299-21	Same	Same	16.00	4.40
			16.50	4.00
299-22	Same	Same	15.75	4.40
			16.50	4.00
299-22	Same	Same	16.75	4.70
			16.50	4.00
299-22	Same	Same	16.50	4.80
			16.50	4.00
3862-22	Union Feed	American Milling Co.	16.00	5.70
		Peoria, Ill.	16.50	4.50

ANALYSES OF INSPECTORS' SAMPLES.

SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
J. C. Wiseman..... Kuttawa.	Wheat bran, middlings, shorts, ground wheat screenings 2%..	
Ruef Bros. Co. Covington.	Wheat bran, wheat middlings, ground wheat screenings 5%..	
Mfrs. Warehouse	Wheat bran, shipstuff.....	Contains corn bran and unground wheat screenings.
Same	Same	Same—Below guaranty in protein.
Sam Nahm & Co. Bowling Green.	Wheat shorts, wheat bran, low grade flour, ground screenings 8%	
J. E. Sego & Son..... Munfordville.	Wheat bran, wheat middlings, crushed wheat screenings 5%..	Not mixed wheat feed, but wheat bran. Be- low guaranty in pro- tein and above in fiber.
Yates & Fowler	Wheat bran, wheat middlings...	Considerable ground wheat screenings. Guarantee on fiber is too low. Should be about 8.50%.
Beaver Dam Coal Co. ... Beaver Dam.	Same	Same.
W. E. Ellis & Bro. Hartford.	Same	Same.
East End Milling Co. ... Henderson.	Wheat bran, wheat middlings, ground wheat screenings 5%..	
Sam Nahm & Co. Bowling Green.	Wheat bran, wheat middlings, ground wheat screenings 10%.	
Same	Same	Below guaranty in pro- tein.
Ballard & Masters..... Ravenna.	Same	
Wm. Addams	Same	
Cynthiana.	Same	
Roszell Bros. Lexington.	Same	
John L. Hosman..... Morganfield.	Same	Below guaranty in pro- tein.
Owen Grocery Co. Owenton.	Same	
Park City Feed Store... Bowling Green.	Same	
The United Supply Co... Lynch.	Wheat middlings, finely ground wheat bran, ground wheat screenings 5%	Below guaranty in pro- tein.

TABLE VI.—STRAIGHT FEED.

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
2634-21	Aubrey's Feed and Screenings ..	Aubrey & Co. Louisville, Ky.	17.50 16.00	5.00 4.00
2634-21	Same	Same	18.13 16.00	4.52 4.00
2634-21	Same	Same	16.44 16.00	3.74 4.00
2634-21	Same	Same	16.50 16.00	3.85 4.00
2634-21	Same	Same	16.75 16.00	5.34 4.00
2634-21	Same	Same	16.50 16.00	5.58 4.00
2634-21	Same	Same	17.31 16.00	5.40 4.00
2634-22	Same	Same	16.00 16.00	5.79 4.00
2634-22	Same	Same	17.00 16.00	4.87 4.00
787-21	Bull's Eye Mixed Feed.....	Blish Milling Co. Seymour, Ind.	16.63 16.00	4.83 4.40
787-21	Same	Same	16.75 16.00	4.71 4.40
787-21	Same	Same	16.50 16.00	4.34 4.40
787-22	Same	Same	16.50 16.00	4.56 4.40
3738-21	Clausen Feed and Screenings....	Conrad J. Clausen..... Louisville, Ky.	17.00 15.00	5.16 4.00
3563-21	Dunlop's Beauty Feed.....	The Dunlop Milling Co. Clarksville, Tenn.	14.75 15.00	4.06 4.00
2577-21	Eadan Kentucky Feed	The Early & Daniel Co. Cincinnati, Ohio	16.38 15.00	4.85 3.50
2577-21	Same	Same	17.25 15.00	5.14 3.50
2503-20	Damon's Feed	Elkton City Roller Mills..... Elkton, Ky.	14.94 15.75	4.65 4.25
4106-22	E-A-Co.'s Feed and Screenings...	Everett, Aughenbaugh & Co. .. Waseca, Wis.	17.88 17.00	5.40 5.00
1262-19	Gwinn's Dairy Feed.....	The Gwinn Milling Co. Columbus, Ohio	13.38 14.00	4.33 4.00

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
1	Shepherdsville Rol. Mills Shepherdsville.	Wheat bran, wheat shorts, ground wheat screenings 6%.....	
1	Dickerson Bros. Glasgow.	Wheat middlings, fine ground wheat bran, ground wheat screenings 6%	Coarse wheat bran present.
1	Woosley & Son..... Elizabethtown.	Same	
1	Duncan & Co. Pewee Valley.	Same	
1	Taulbee & Co. Hazard.	Same	Adulterated with weed seeds.
1	S. T. Frazier..... Whitesburg.	Same	Adulterated with ground weed seeds. Above guaranty in fiber.
1	Dixie Wholesale Gro. Co. Barbourville.	Same	Ground weed seeds present.
2	S. T. Frazier. Whitesburg.	Same	
2	Same	Same	
2	Kentucky Feed & Grain Co., Louisville.....	Wheat bran, wheat middlings..	
2	London Grocery Co. London.	Same	
2	Merrifield & Humphrey.. Bloomfield.	Same	
2	Cogar-Rumley Co. Midway.	Same	
2	Mfrs. Warehouse	Wheat middlings, fine ground wheat bran, ground wheat screenings 6%	
2	Wilson & Newman..... Russellville.	Wheat bran, wheat shorts, ground wheat screenings 3%.....	
2	Bacon R. Moore..... Torrent.	Wheat middlings, ground wheat bran, low grade flour, ground wheat screenings 5%.....	Ground and unground wheat screenings present.
2	Powell-Hackney Gro. Co. Jackson.	Same	Same.
2	Mfrs. Warehouse	Wheat bran, wheat shorts.....	Below guaranty in pro- tein.
2	Wm. P. Miller..... Louisville.	Wheat middlings, ground wheat bran, wheat screenings 6%...	
1	J. F. Bertram..... Vanceburg.	Wheat bran, wheat middlings, ground wheat screenings 10%.	Below guaranty in pro- tein. Ground corn bran and unground wheat screenings present.

TABLE VI.—STRAIGHT FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
2775-21	Standard Feed	Keister Milling Co.	15.06	4.92
		Huntington, W. Va.	14.00	4.00
2775-21	Same	Same	15.13	4.84
			14.00	4.00
2308-19	Wheat Bran and Shorts.....	Marshall County Milling Co. ...	15.13	3.25
		Benton, Ky.	15.65	4.15
2659-21	Rankin's Fancy Feed.....	M. G. Rankin & Co.	18.94	6.10
		Milwaukee, Wis.	14.00	4.00
2660-21	Rankin's Standard Feed.....	Same	17.50	4.92
			14.00	3.50
2636-23	Standard Feed and Screenings...	Edw. M. Riedling.....	14.63	6.16
		Louisville, Ky.	14.00	4.00
3072-22	R. D's Feed.....	R. D. Riedling.....	16.63	5.27
		Louisville, Ky.	16.00	5.57
1006-21	Occident Feed	Russell Miller Milling Co.	17.50	6.66
		Minneapolis, Minn.	15.50	4.50
2879-21	Big Diamond Brand Feed.....	Jesse C. Stewart Co.	16.38	5.16
		Pittsburg, Pa.	16.00	4.50
2879-21	Same	Same	16.88	4.99
			16.00	4.50
2879-22	Same	Same	15.50	5.27
			16.00	4.50
2482-21	Shadyside Brand Feed.....	Same	18.00	4.93
			14.00	4.00
1313-21	"A-Mixed-Feed"	Tell City Flouring Mills.....	14.50	3.60
		Tell City, Ind.	15.00	4.00
1313-22	Same	Same	16.50	4.79
			15.00	4.00
1313-22	Same	Same	14.50	3.57
			15.00	4.00
	Red Dog Flour			
3888-21	Red Dog Flour.....	R. U. Kevil & Sons.....	16.13	3.06
		Princeton, Ky.	15.00	3.03
3483-22	Red Dog Flour.....	The Larabee Flour Mills Corp...	17.06	3.25
		Kansas City, Mo.	15.00	2.50
3159-22	Red Dog Flour.....	Rapier Sugar Feed Co.	16.00	2.56
		Owensboro, Ky.	16.50	4.00

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
21	J. B. Dixon..... Ashland.	Wheat middlings, ground wheat screenings 5%	
21	Wheeler Grocery Co. ... Paintsville.	Same	Contains ground wheat bran and ground weed seeds.
19	J. R. Brandon..... Benton.	Bran, shorts	Below guaranty in protein. Unground wheat screenings present.
21	Paintsville Grocery Co. . Paintsville.	Wheat middlings, ground wheat screenings 15%	
21	Hampton Grocery Co. ... Allen.	Wheat middlings, ground bran, ground wheat screenings 15%	This feed is middlings.
23	Mfrs. Warehouse	Wheat middlings, fine wheat bran, ground wheat screenings 15%	Above guaranty in fiber. Sample is Durum wheat bran, not as guaranteed.
22	Same	Wheat bran, wheat middlings, ground wheat screenings 7% ..	
21	Cogar Coal, Grain & Feed Co., Harrodsburg	Wheat bran, wheat middlings, red dog flour	No red dog flour present.
21	N. D. Tabor..... Olive Hill.	Wheat bran, wheat middlings, ground wheat screenings 15% ..	Sample is wheat middlings.
21	D. W. Spurlock..... Prestonsburg.	Same	Same.
22	Moore & Moore..... Louisa.	Same	Below guaranty in protein.
21	J. Harris	Same	
21	Bozarth & Freeman..... Hawesville.	Wheat bran, wheat middlings, ground wheat screenings 5% ..	Considerable oat hulls present. Below guaranty in protein.
22	G. H. Harris..... Cloverport.	Same	
22	Joe Uloth	Same	Below guaranty in protein and fat.
22	Brandenburg.		
21	W. B. Ray Feed Co..... Princeton.	Red dog	
22	Owensboro Milling Co. .. Owensboro.	Low grade flour.....	
22	James Roberts	Same	
22	Lewisport.		

TABLE VII.—MIXED FEEDS.

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
	Brewers' Dried Grains.			
2253-17	Dried Brewers' Grains.....	Evansville Dry Malt & Feed Co. Evansville, Ind.	19.50 24.00	6.19 5.00
3506-21	Brewers' Dried Grains.....	Falls City Ice & Beverage Co.. Louisville, Ky.	18.75 18.00	5.70 6.93
4385-22	Barley Malt Feed	Same	13.44 12.56	2.38 2.30
2000-20	Brewers' Dried Grains.....	The Hiland Dairy Co. Newport, Ky.	25.50 20.27	9.64 5.66
	Barley & Oat Feed.			
2683-21	Barley & Oat Feed.....	The Cincinnati Grain & Hay Co. Covington, Ky.	13.38 11.88	3.78 3.00
	Corn and Oat Chops.			
3793-21	Corno Corn & Oat Chops.....	The Corno Mills Co. St. Louis, Mo.	10.31 10.00	4.25 4.00
1816-20	Cerealia Rex Chops.....	The Early & Daniel Co. Cincinnati, Ohio.	10.00 10.00	4.56 5.00
1247-21	Crushed Feed	Henry Fruechtenicht	10.00 9.80	4.20 3.88
3709-22	Big Gee Corn & Oat Chop.....	Edward F. Goeke Co. Evansville, Ind.	10.63 8.00	4.36 4.00
4536-23	Oat & Corn Chop.....	George Keller	9.88 10.69	4.55 4.95
	Matzos Feed.			
3281-21	Matzos Feed	Latonia Hay & Grain Co. Latonia, Ky.	11.50 11.75	1.05 1.93
4047-22	Matzos Sweepings	The B. Manischewitz Co. Cincinnati, Ohio.	10.00 11.75	1.27 1.93

ANALYSES OF INSPECTORS' SAMPLES.

SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
7 R. P. Sisco..... Marion.	Barley malt, corn flakes, corn grits	Below guaranty in pro- tein. Inferior to guar- anty.
1 Geo. F. Korfhage & Co.. Louisville.	Barley malt	
2 Conner-Haydon & Co. .. Bardstown.	Same	
0 George B. Moock..... Newport.	Barley rice	Sample is distiller's dried grains.
1 J. B. Penn & Co. Georgetown.	Ground barley, ground wild oats.	Above guaranty in fiber.
1 Union Transfer Co. Lexington.	Corn, whole oats.....	Guaranty on fiber is too high.
0 Manchester Grocery Co.. Manchester.	Corn, oats	High in fiber.
1 J. F. Griffin & Son..... Mt. Vernon.	Corn, oats	Contains pin oats and wild oats crushed.
2 Sturgis Feed Co. Sturgis.	Crushed corn, crushed oats.....	
3 Mfrs. Warehouse	Ground oats, ground corn.....	Excess of oat hulls. Be- low guaranty in pro- tein and high in fiber.
1 Mfrs. Warehouse	Ground crackers and bread scraps	Below guaranty in fat.
2 A. Bickers	Ground bread scraps from flour..	Below guaranty in pro- tein and fat.

TABLE VII.—MIXED FEED

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
	Wheat and Corn By-Products			
316-21	Acme Farm Feed.....	Acme-Evans Co.	10.88	3.88
		Indianapolis, Ind.	12.00	5.00
316-22	Same	Same	11.25	3.23
			12.00	5.00
316-22	Same	Same	10.88	3.70
			12.00	5.00
316-22	Same	Same	12.00	3.92
			12.00	5.00
763-22	Anderson & Spilman Feed	Anderson & Spilman	14.56	3.96
		Danville, Ky.	13.50	3.68
750-21	Mill Run Feed.....	The Auburn Mills.....	15.75	4.33
		Auburn, Ky.	15.75	4.35
751-21	Mixed Feed	Same	14.13	4.52
			14.50	4.25
4075-22	"Rich As Gold"	Aviston Milling Co.	11.50	3.85
		Aviston, Ill.	14.00	5.00
4075-22	Same	Same	12.25	3.95
			14.00	5.00
3200-21	Royal Mill Feed.....	Bardstown Milling Co.	14.75	5.52
		Bardstown, Ky.	14.75	4.25
3853-22	Nox-All Mixed Feed.....	Baskett Grain Co.	12.88	3.86
		Henderson, Ky.	14.50	4.00
3853-22	Same	Same	10.94	4.84
			14.50	4.00
1163-22	Mixed Feed	Beaty Bros.	14.56	5.25
		Science Hill, Ky.	14.50	5.69
4157-22	"Boyle" Mixed Feed.....	Boyle Roller Mills.....	11.75	4.21
		Junction City, Ky.	13.94	4.15
4157-22	Same	Same	13.25	4.68
			13.94	4.15
774-22	XX Mixed Feed	Chas. Broeker & Co.	14.75	6.73
		Owensboro, Ky.	13.00	4.00

ANALYSES OF INSPECTORS' SAMPLES.

SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
1 W. T. Sistrunk & Co. . . . Lexington.	Corn, wheat bran, wheat middlings, hominy meal, salt.	Below guaranty in protein and fat.
2 B. L. Mattingly Ekron.	Same	No hominy meal found. Below guaranty in protein and fat.
2 J. H. Baughman & Co. . . . Stanford.	Same	Below guaranty in protein and fat. Inferior to claim.
2 Morgan & Crenshaw Georgetown.	Same	Corn product present is corn feed meal.
2 New Crescent Lumber Co . . . Danville.	Wheat bran, wheat middlings, low grade flour, ground and unground screenings 10%, corn bran	Corn meal present. No low grade flour used.
1 B. V. Hunt Franklin.	Wheat bran, wheat middlings, corn bran 3%, ground wheat screenings 3%	
1 W. A. Chambers Co. Russellville.	Wheat bran, corn bran, ground wheat screenings 3%	
2 Lanham-Terrell Gro. Co. . . Corbin.	Corn oil meal, hominy feed, corn meal, wheat middlings (with ground screenings)	Below guaranty in protein and fat, inferior to claim. The difference is probably due to the use of too much corn meal for oil meal and hominy feed.
2 London Grocery Co. London.	Same	Below guaranty in protein and fat. Inferior to guaranty.
1 Mfrs. Warehouse	Wheat bran, wheat middlings, corn bran 10%, ground wheat screenings 5%	
2 Rea & Rice Earlington.	Wheat bran, wheat middlings, wheat shorts, hominy meal, ground wheat screenings 2%	Below guaranty in protein—Not properly labeled. Corn product is corn meal and not hominy meal.
2 Fortney & Pulley Central City.	Wheat bran, wheat middlings, hominy chop	Below guaranty in protein and above in fiber. Inferior article to guarantee.
2 Breeden & Ward Science Hill.	Wheat middlings, wheat bran, corn bran, wheat shorts.	
2 George H. Simpson Shelby City.	Wheat bran, wheat shorts, ground corn, ground wheat screenings 2%	Below guaranty in protein. Contains too much corn product for guarantee.
2 Coffee & Van Hook Moreland.	Same	Below guaranty in protein.
2 Henderson Feed Store Owensboro.	Wheat bran, shipstuff, hominy feed, ground wheat screenings 1%	

TABLE VII.—MIXED FEEDS

Reg.No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
774-22	XX Mixed Feed.....	Chas. Broeker & Co..... Owensboro, Ky.	14.31 13.00	5.76 4.00
774-22	Same	Same	14.25	5.96
			13.00	4.00
4-22	Mixed Feed	Browder Milling Co. Fulton, Ky.	14.50 15.28	4.96 4.68
770-22	Mixed Feed	Burnside Roller Mills..... Burnside, Ky.	14.00 15.00	5.34 4.00
340-21	Mixed Feed	Cannellton Flour Mills..... Cannellton, Ind.	15.25 14.43	3.55 3.45
1854-21	Mixed Feed	Cecilian Milling Co. Cecilia, Ky.	16.19 14.37	4.96 4.15
1854-22	Same	Same	14.88	4.80
			14.37	4.15
3642-21	"Wheato" Mixed Feed	Cedar Hill Roller Mills..... Cedar Hill, Tenn.	15.00 13.38	3.31 4.33
1953-21	Mixed Feed	Central Milling Co. Brodhead, Ky.	13.63 15.45	4.10 4.40
4597-22	Red Star Fine Feed.....	Chattanooga Feed Co. Chattanooga, Tenn.	14.88 14.00	3.84 4.50
857-21	Peerless Feed	Clay Flour Mills..... Clay, Ky.	12.75 13.94	4.55 3.58
857-22	Same	Same	13.94	4.12
			13.94	4.58
4099-22	Mixed Feed	Clay City Roller Mills..... Clay City, Ky.	14.25 15.50	3.95 3.75
2818-21	Mixed Feed	Clell Coleman & Sons..... Burgin, Ky.	14.63 14.25	4.70 4.25
2818-22	Same	Same	15.63	4.55
			14.25	4.25
1535-20	King Chop Feed	The Colton Bros. Co. Bellefontaine, Ohio.	10.13 12.00	3.68 4.50
4063-22	Mixed Feed	Community Roller Mills..... Calhoun, Ky.	12.50 13.93	4.35 4.29
848-20	Mixed Feed	Crab Orchard Milling Co. Crab Orchard, Ky.	15.38 15.22	3.62 4.28
878-19	Mixed Feed	Dawson Milling Co. Dawson Springs, Ky.	12.25 14.94	5.77 4.08

ANALYSES OF INSPECTORS' SAMPLES.

SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
2 T. R. Franklin. Dawson Springs. Shannon-Mercer & Co. . . . Depoy.	Wheat bran, shipstuff, hominy feed, ground wheat screenings 1% Same	
2 J. M. McNeilly Fulton.	Soft winter wheat bran, soft winter wheat middlings, corn bran, ground wheat screenings 7½%	Below guaranty in pro- tein.
2 Geo. P. Taylor Co. Somerset.	Wheat bran, corn bran, unground wheat screenings 1%	Below guaranty in pro- tein.
1 A. D. Ashcraft Irvington.	Wheat bran, corn bran, wheat middlings, ground wheat screenings 5%	
1 J. F. Williams & Son Elizabethtown.	Wheat bran, shorts, corn, corn bran	Above guaranty in fiber.
2 Woosley & Son Elizabethtown.	Same	
1 Wilson & Newman Russellville.	Wheat middlings, wheat bran, corn bran, corn meal	No corn meal or corn bran present.
1 D. C. Poynter Mt. Vernon.	Wheat bran, wheat shorts, corn bran	Corn meal and ground wheat screenings present. Below guar- anty in protein.
2 The Bryant Feed Co. Corbin.	Wheat bran, wheat shorts, corn bran, corn hearts, wheat and corn screenings 10%	Below guaranty in fat.
1 Mfrs. Warehouse	Wheat bran, corn bran	Below guaranty in pro- tein. Wheat mid- dlings and corn bran present.
2 Same	Same	
2 Same	Wheat bran, wheat middlings, wheat shorts, corn bran, ground wheat screenings 2%	Below guaranty in pro- tein. Corn meal pres- ent.
1 Same	Shipstuff, corn bran, wheat screen- ings 10%	
2 S. A. Rankin Monticello.	Same	
0 Lanham-Terrell Gro. Co. . . Corbin.	Reground corn bran, corn meal, wheat bran	Below guaranty in both protein and fat. Con- siderable ground oats and oat hulls present.
2 J. D. Gossett Calhoun.	Wheat bran, wheat middlings, corn meal	Below guaranty in pro- tein.
0 J. F. Griffin & Son Mt. Vernon.	Wheat bran, wheat shorts, corn bran	Below guaranty in fat.
0 Mfrs. Warehouse	Wheat bran, corn bran, unground wheat screenings 3%	Corn bran and corn meal present. Below guar- anty in protein. In- ferior to guaranty.

TABLE VII.—MIXED FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
319-21	Dorsel's Special Feed	The Dorsel Co. Newport, Ky.	14.63 15.00	3.9 4.0
319-22	Same	Same	17.25 15.00	5.1 4.0
1021-18	Dorsel's Mixed Brans	Same	13.50 14.00	4.1 4.0
3053-21	Tuxedo White Middlings & Corn Flour	The Early & Daniel Co. Cincinnati, Ohio.	12.81 15.00	3.6 4.0
3397-21	Mixed Feed	The Elite Roller Mills..... Elkton, Ky.	14.63 15.45	5.5 4.5
91-21	Leader Mixed Feed.....	Eminence Milling Co. Eminence, Ky.	15.25 15.00	4.6 4.5
91-21	Same	Same	14.88 15.00	4.4 4.5
91-21	Same	Same	13.56 15.00	4.5 4.5
91-22	Same	Same	14.63 15.00	5.09 4.5
91-22	Same	Same	14.50 15.00	5.5 4.5
3658-21	Kentucky Pride	The Eversole Co. London, Ky.	14.13 15.50	5.22 4.45
892-22	Mixed Brans & Screenings	Exchange Milling Co. Sturgis, Ky.	14.13 14.50	4.16 5.00
1503-21	Mixed Feed	W. M. Farless..... Henderson, Ky.	14.38 15.00	4.13 4.00
1503-21	Same	Same	14.13 15.00	4.11 4.00
886-21	Jersey Feed	Faywood Milling Co. Versailles, Ky., R. F. D. 1.	14.69 15.45	4.02 4.10
886-21	Same	Same	13.19 15.45	3.86 4.10
851-22	Mixed Brans	Franklin Kentucky Mills Co. .. Franklin, Ky.	13.75 16.13	5.12 4.51
3070-21	Common Sense Feed.....	Henry Fruechtenicht	14.13 13.00	5.87 5.60

ANALYSES OF INSPECTORS' SAMPLES.

SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
Fred Schuerman Newport.	Wheat middlings, fine corn bran 10%	Ground wheat screen- ings containing cheat and weed seeds present.
Same	Same	No corn bran present. Ground wheat screen- ings found.
Louis Kuechler Newport.	Wheat bran, corn bran.....	Below guaranty in pro- tein and above in fiber.
J. W. Rink..... Walton.	Wheat flour middlings, corn flour.	Much below guaranty in protein and much in- ferior to quality.
Mfrs. Warehouse	Wheat bran, wheat middlings, corn bran	Below guaranty in pro- tein.
Ewing & Gray	Wheat bran, wheat middlings, corn bran 2%, ground wheat screenings 5%	Screenings contain weed seeds and cheat.
F. J. Porter..... Bloomfield.	Same	Unground wheat screen- ings found.
Ewing & Gray	Same	Below guaranty in pro- tein. Inferior to guaranty.
New Castle Implement Co New Castle.	Same	
Lon Ewing	Same	Below guaranty in pro- tein.
Mfrs. Warehouse	Wheat shorts, wheat bran, corn bran	Same.
West Kentucky Coal Co.. Sturgis.	Wheat bran, corn bran, unground wheat screenings 8%	Below guaranty in fat.
J. H. Willingham..... Henderson.	Wheat bran, corn bran 5%. Ground wheat screenings 3%..	Below guaranty in pro- tein.
T. F. Hart	Same	Below guaranty in pro- tein. Corn meal found. Contains con- siderable cheat and chaff.
Mfrs. Warehouse	Wheat bran, wheat shorts, corn bran 3%	Below guaranty in pro- tein and above in fiber.
Cogar-Rumley Co. Midway.	Same	No wheat bran found. Below guaranty in protein and fat.
Park City Feed Store.... Bowling Green.	Wheat bran, corn bran, ground wheat screenings 2%	Considerable corn meal and low grade wheat flour present. Below guaranty in protein.
Chappell Grocery Co.... Pineville.	Wheat bran, hominy feed.....	Contains ground wheat screenings.

TABLE VII.—MIXED FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
259-22	Mixed Feed	Garrard Milling Co. Lancaster, Ky.	11.38 13.75	4.4 4.8
259-22	Same	Same	11.88 13.75	4.4 4.8
259-22	Same	Same	13.19 13.75	3.2 4.8
909-21	Glass Hi-Grade Feed.....	Glass Milling Co. Wilmore, Ky.	14.06 15.70	4.7 4.2
909-21	Same	Same	12.25 15.70	2.9 4.2
909-21	Same	Same	12.25 15.70	2.9 4.2
909-22	Same	Same	14.38 14.13	5.14 3.95
1454-20	Mixed Feed	Gordonsville Milling Co. Gordonsville, Ky.	14.63 14.41	3.60 5.03
4003-21	Mixed Feed	Green Bros. Falls of Rough, Ky.	15.25 15.36	4.10 4.41
3656-21	Farm Feed	Gwinn Bros. Co. Huntington, W. Va.	14.00 14.00	4.82 4.00
3656-22	Same	Same	14.50 14.00	6.42 4.00
3786-21	Mixed Feed	Hardin Milling Co. Hardin, Ky.	10.50 11.38	3.81 4.10
961-21	Mixed Feed	Hardinsburg Mill & Elevator Co. Hardinsburg, Ky.	13.50 14.75	3.85 4.25
4234-22	"Harlomco" Mixed Feed.....	Harlan-Lowe Milling Co. Bardwell, Ky.	15.44 15.50	4.4 4.60
4234-22	Same	Same	14.00 15.50	4.17 4.60
71-21	Feed Stuff	Same	15.56 14.00	4.58 4.20

ANALYSES OF INSPECTORS' SAMPLES.

SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
2 Mfrs. Warehouse	Wheat bran, wheat shorts, corn bran, ground wheat screenings 3%	Below guaranty in protein. Too much corn product used for the guarantee.
2 J. S. Duke..... Crab Orchard.	Same	Same.
2 J. S. Rowe	Same	Below guaranty in protein. Inferior product.
1 F. K. Tribble	Wheat bran, wheat middlings shipstuff, corn bran, unground wheat screenings 3%	Below guaranty in protein and above in fiber.
1 Turner & Ham Co. Somerset.	Same	Below guaranty in both protein and fat. Inferior to guaranty.
1 I. E. Payne	Same	Made of whole ground barley, corn feed meal, ground wheat screenings containing cheat, ground oats and is not the feed claimed. Misbranded.
2 Flavo Grain & Mill Co. .. Somerset.	Same	
20 C. S. Lyne, Jr. Russellville.	Wheat bran, corn bran, whole wheat screenings 2%	Below guaranty in fat and above in fiber.
21 T. J. Whittinghill..... Fordsville.	Wheat bran, corn bran, ground wheat screenings 1%, middlings	Ground and unground wheat screenings in excess of 1%
21 H. H. Borders..... Catlettsburg.	Wheat bran, wheat middlings (with ground screenings), corn flour, corn bran	No corn flour present.
22 R. T. Elswick & Co. Praise.	Same	
21 Mfrs. Warehouse	Wheat bran, wheat middlings, cracked corn ground wheat screenings 7%	Below guaranty in protein and fat and above in fiber.
21 J. H. Roberts..... Fordsville.	Wheat bran, shipstuff, corn bran, ground wheat screenings 5% ..	Below guaranty in protein. Corn meal found.
22 Ballard Mercantile Co. .. Wickliffe.	Wheat bran, middlings, shorts, ground wheat screenings 3%, corn bran.	Unground wheat screenings containing cheat present.
22 Same	Same	Below guaranty in protein. Much inferior to claim.
21 Ballard Mercantile Co. .. Wickliffe.	Wheat bran, corn bran, ground & unground wheat screenings 3%	

TABLE VII.—MIXED FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis		
			Prot.	Fat	Mo.
1193-22	Empress	R. L. Harrison & Sons..... Bagdad, Ky.	13.81 15.38	4.79 3.85	6.4
1193-22	Same	Same	14.25 15.38	4.55 3.85	6.4
962-20	Mixed Feed	Hickman Milling Co. Nicholasville, Ky.	12.81 14.00	4.19 3.50	6.4
3361-21	Superior Mixed Feed	Horse Cave Mills..... Horse Cave, Ky.	13.25 15.75	4.64 4.50	6.4
3008-21	Mixed Feed	Hustonville Roller Mills..... Hustonville, Ky.	15.00 14.30	4.25 3.90	10.0
3086-20	Lyon Mixed Feed	Keith Bros. Buffalo, Ky.	14.63 15.25	5.00 4.35	7.0
500-22	Mixed Feed	R. U. Kevil & Sons..... Princeton, Ky.	15.25 15.00	4.76 4.25	7.0
500-22	Same	Same	15.31 15.00	4.83 4.25	7.0
324-22	Mixed Feed	Kuttawa Milling Co. Kuttawa, Ky.	14.00 13.90	5.57 3.52	6.7
324-22	Same	Same	14.00 13.90	6.15 3.52	5.8
3774-22	La Fayette Feed	La Fayette Corn Flour Mills... Louisville, Ky.	11.88 12.00	7.20 6.50	5.4
3774-22	Same	Same	12.13 12.00	7.16 6.50	5.4
3774-22	Same	Same	12.88 12.00	6.26 6.50	4.7
752-22	Mixed Feed	Lancaster Milling Co. Lancaster, Ky.	14.25 16.00	4.52 5.38	7.0
397-21	Thoroughbred Feed	Lexington Roller Mills Co. Lexington, Ky.	16.00 15.50	4.55 4.50	7.0
397-22	Same	Same	15.00 15.50	3.78 4.50	7.0
397-22	Same	Same	15.00 15.50	4.49 4.50	7.0
1038-22	Farmers Choice	Lewisport Mill Co. Lewisport, Ky.	14.75 14.00	4.81 4.25	6.4

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
22	R. A. Newton & Co. Shelbyville.	Wheat bran, wheat shorts, corn bran, ground wheat screenings 10%	Below guaranty in pro- tein and above in fiber. Too much corn bran used.
22	Shelbyville Feed & Pro- duce Co., Shelbyville..	Same	Below guaranty in pro- tein and above in fiber. Unground wheat screenings present.
20	C. T. Ashley Co. Nicholasville.	Wheat bran, corn bran 5%, ground wheat screenings 5%...	Much too low in pro- tein. Corn meal present.
21	Hulen-Toops Co. Munfordville.	Wheat bran, wheat middlings, corn bran, ground wheat screenings 5%	Below guaranty in pro- tein. Corn meal pres- ent.
21	Reynolds & Burleson.... Waynesburg.	Wheat bran, wheat shorts, corn bran, ground wheat screenings 15%	
20	J. W. Mahoney..... New Haven.	Wheat bran, wheat shorts, corn bran, ground screenings 3% ..	Below guaranty in pro- tein.
22	McLin Bros. Princeton.	Wheat bran, corn bran, ground wheat screenings 4%.....	
22	W. B. Ray..... Princeton.	Same	
22	E. O. Harrell..... Eddyville.	Shipstuff, corn bran, wheat bran.	
22	Mfrs. Warehouse	Same	Corn meal present.
22	Jellico Grocery Co. Corbin.	Hominy feed, wheat middlings...	
22	Bell Grocery Co. Pineville.	Same	
22	Mahan Co. Winchester.	Same	
22	Mfrs. Warehouse	Wheat bran, corn bran.....	Inferior feed, unground wheat screenings con- taining pin oats, cheat, cockle.
21	J. P. Oney	Wheat bran, wheat middlings, ground wheat screenings 3%, corn bran 2%	
22	Caudill, Hall & Co. Morehead.	Same	
22	Stearns Coal & Lumber Co., Stearns	Same	Below guaranty in pro- tein.
22	W. M. Gordon..... Maceo.	Shipstuff, corn bran, ground wheat screenings 2%	Corn meal present.

TABLE VII.—MIXED FEEDS.

Reg.No.	NAME OF FEED	MANUFACTURER	Analysis		
			Prot.	Fat	Mo.
287-22	Ideal Cow Feed.....	Lone Mountain Milling Co. Middlesboro, Ky.	11.88 13.00	4.23 4.50	7.1 7.1
406-21	Nonesuch Feed	The Louisville Cereal Mill Co. . Louisville, Ky.	11.75 11.62	5.72 6.00	4.4 4.4
1073-22	Mixed Feed	McKinney Milling Co. McKinney, Ky.	15.75 14.25	4.48 4.70	7.1 9.0
1072-22	Madison Feed	Madison Milling Co. Richmond, Ky.	15.38 15.50	4.18 4.75	9.1 9.3
752-21	Mixed Feed	F. B. Marksburg & Co. Lancaster, Ky.	14.56 16.00	4.65 5.38	9.0 9.0
158-21	Mixed Feed	Mayfield Milling Co. Mayfield, Ky.	14.00 14.50	5.20 4.95	7.1 7.1
158-21	Same	Same	16.25 14.50	4.83 4.95	7.1 7.1
158-22	Same	Same	13.50 14.50	4.60 4.95	6.1 7.1
158-22	Same	Same	13.94 14.50	4.77 4.95	7.1 7.1
158-22	Same	Same	15.75 14.50	4.26 4.95	8.1 7.1
1319-20	Mixed Feed	Model Mills, Ward Bros., Props. Georgetown, Ky.	15.25 15.69	4.95 4.56	7.1 8.4
1956-21	White Rose Mixed Feed.....	Morganfield Roller Mills..... Morganfield, Ky.	11.88 12.00	3.59 4.00	4.4 10.0
1956-22	Same	Same	16.75 12.00	4.07 4.00	2.0 10.0
1956-22	Same	Same	12.25 12.00	4.61 4.00	5.0 10.0
1956-22	Same	Same	15.00 12.00	4.12 4.00	7.1 10.0
1956-22	Same	Same	13.00 12.00	4.03 4.00	6.1 10.0
1956-22	Same	Same	12.75 12.00	4.35 4.00	6.0 10.0
1956-22	Same	Same	12.38 12.00	4.28 4.00	5.8 10.0

ANALYSES OF INSPECTORS' SAMPLES.

g.No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
87-22	Pineville Produce Co. . . Pineville.	Wheat bran, wheat shorts, corn bran, feed meal, ground wheat screenings 6%	Below guaranty in pro- tein and fat.
06-21	Joe Lovett Williamsburg.	Hominy meal, wheat bran.....	
73-22	Breeden & Ward..... Science Hill.	Wheat bran, wheat shorts, corn bran, ground wheat screenings 3%	No corn bran present.
72-22	Creesh Bros. Poor Fork.	Wheat bran, wheat middlings, corn bran, ground wheat screen- ings 5%	No corn bran present. Unground wheat screenings found.
52-21	M. S. Burton Mt. Vernon.	Wheat bran, corn bran.....	Below guaranty in pro- tein and fat.
58-21	F. M. Holcomb..... Murray.	Wheat bran, corn bran, shorts, ground wheat screenings 3%.	Below guaranty in pro- tein. Corn meal present.
58-21	Mfrs. Warehouse	Same	
58-22	Graves Co. Farm Bureau. Mayfield.	Same	Below guaranty in pro- tein.
58-22	J. J. Shaver..... Mayfield.	Same	Below guaranty in pro- tein. Unground wheat screenings containing cheat in excess of guarantee.
58-22	Same	Same	Above guarantee in fiber. Unground wheat screenings in excess of 3% present.
19-20	R. A. Dodd..... Nicholasville.	Wheat bran, wheat middlings, corn bran, ground wheat screen- ings 3%	
956-21	S. Grayson Corydon.	Wheat bran, corn bran, ground wheat screenings 3%	Considerable corn meal present.
956-22	John L. Hosman..... Morganfield.	Same	Sample is wheat mid- dlings and not mixed feed.
956-22	W. B. Davis..... Princeton.	Same	Corn meal present. Ground wheat screen- ings contain cheat.
956-22	J. H. West Dawson Springs.	Same	
956-22	Mfrs. Warehouse	Same	Corn meal present. Un- ground wheat screen- ings, containing cheat, in excess of 3%.
956-22	H. C. Penticost..... Corydon.	Same	
956-22	Jacob Stotz Greenville.	Same	Same.

TABLE VII.—MIXED FEED

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
1081-22	Fine Feed	Mountain City Mill Co. Chattanooga, Tenn.	10.13 15.00	4.54 7.75
1081-22	Same	Same	14.06 15.00	4.49 4.50
1081-22	"Blue Cow" Fine Feed.....	Same	14.63 11.00	4.46 4.50
250-22	Mixed Feed	Murray Milling Co. Murray, Ky.	14.38 15.00	4.97 4.00
2793-20	Mixed Feed	J. C. Nelson..... Jamestown, Ky.	13.75 12.31	3.46 3.01
1131-21	Mixed Feed	W. N. Neville	14.50 15.00	4.15 3.00
1131-21	Same	Same	15.25 15.00	3.98 3.00
1131-22	Same	Same	12.88 15.00	4.65 3.00
3261-23	Mill Feed	New Era Milling Co. Sadieville, Ky.	14.75 15.25	3.26 4.00
2035-23	Ideal Feed	E. F. Ogden & Son..... Slaughters, Ky.	14.50 13.00	3.67 4.00
3165-21	Mixed Feed	Owenton Roller Mills	13.94 15.50	4.19 4.09
3165-21	Same	Same	14.75 15.50	4.07 4.09
1936-21	Mixed Feed	Paducah Milling Co. Paducah, Ky.	15.13 15.50	4.33 4.50
1936-22	Same	Same	13.69 15.50	4.33 4.50
1936-22	Same	Same	13.38 15.50	4.54 4.50
1936-23	Same	Same	14.38 15.50	4.51 4.50
1711-21	Mixed Feed	Paris Milling Co. Paris, Ky.	15.25 15.00	4.83 4.75

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
-22	Middlesboro Wholesale Grocery Co., Middlesboro	Wheat shorts, wheat middlings, ground wheat bran, ground wheat screenings 2%, corn bran, hominy feed, corn oil cake, corn meal.	Below guaranty in protein and fat. Inferior to guaranty.
-22	Whitley Grocery Co. ... Corbin.	Same	Below guaranty in protein.
-22	Middlesboro Wholesale Gro. Co., Middlesboro.	Same	
-22	Mfrs. Warehouse	Wheat bran, wheat middlings, corn bran 10%	Below guaranty in protein.
-20	Mfrs. Warehouse	Wheat bran, corn bran, ground wheat screenings 3%	
-21	Lee & Moss. Wickliffe.	Wheat bran, wheat shorts, corn bran, unground wheat screenings 1%	Below guaranty in protein. Screenings present in excess of guaranty.
-21	Mfrs. Warehouse	Same	Considerable cheat present.
-22	Same	Same	Much below guaranty in protein, and inferior to claim.
-23	Farmers Union Supply Co. Cynthia.	Shipstuff, corn bran.	Below guaranty in protein and fat. Corn meal present.
-23	G. E. Mansfield. Madisonville.	Wheat bran, corn bran, shipstuff, unground wheat screenings 10%	
-21	Mfrs. Warehouse	Corn bran, wheat bran, wheat middlings, ground wheat screenings 3%	Below guaranty in protein.
-21	Same	Same	Below guaranty in protein. Unground wheat screenings present.
-21	Claud Harris Paducah.	Wheat bran, wheat shorts, ground wheat screenings 7%, corn bran	Corn meal present.
-22	Mfrs. Warehouse	Same	Below guaranty in protein and above in fiber. Oat product present.
-22	F. M. Holcomb & Son... Murray.	Same	Much below guaranty in protein. Contains corn meal though not declared on label. Inferior to official guarantee.
-23	T. G. Stevenson. Paducah.	Same	Below guaranty in protein. Corn meal present.
-21	W. G. Blair & Co. West Liberty.	Soft winter wheat bran, wheat shorts, wheat middlings, corn bran, ground wheat screenings 3%	

TABLE VII.—MIXED FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
929-22	Mixed Feed	Park City Milling Co. Bowling Green, Ky.	14.56 15.19	5.90 4.17
1423-22	A No. 1 Mill Feed.....	Parks & Son	12.75	6.52
		Richmond, Ky.	13.63	4.25
2550-22	Mixed Feed	The Peoples Roller Mills, G. T. Carnal, Prop., Sebree, Ky. ..	13.25 13.50	2.92 4.50
1268-21	Mill Feed	Peoples Roller Mills Co. Georgetown, Ky.	14.25 14.50	5.10 4.10
1268-21	Same	Same	14.88	4.91
			14.50	4.10
1436-21	Oswegon Feed	Peters & Bradley Mill Co. Knoxville, Tenn.	13.56 14.00	4.37 4.00
1434-20	Mixed Feed	Poole Milling Co.	16.06	3.94
		Poole, Ky.	15.00	3.25
1434-22	Same	Same	14.38	4.73
			15.00	3.25
1216-22	Pott's Reground Mixed Feed.....	R. L. Potts & Sons..... White's Station, Ky.	13.11 13.13	4.55 5.85
967-22	Mixed Feed	Riverside Mills	14.63	4.98
		Adairville, Ky.	15.25	4.45
2888-20	Mixed Feed	Scottsville Milling Co.	11.69	4.00
		Scottsville, Ky.	15.25	4.45
1882-22	Cream Patent Feed	Sebree Roller Mills..... Sebree, Ky.	14.75 15.43	4.57 4.23
1560-21	Mixed Feed	Smithfield Milling Co.	14.75	4.47
		Smithfield, Ky.	15.00	4.50
1560-22	Same	Same	14.31	4.84
			15.00	4.50
900-21	So-mil-co Mixed Feed.....	Somerset Milling Co.	12.63	4.63
		Somerset, Ky.	15.00	4.75
900-21	Same	Same	12.38	4.04
			15.00	4.75
1194-21	Mixed Feed	E. F. Spears & Son..... Paris, Ky.	14.75 14.50	5.05 4.50

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
22	J. L. Jenkins..... Bowling Green.	Wheat bran, shorts, corn bran, ground wheat screenings 5%..	Below guaranty in pro- tein. Wormy and has mouldy odor.
22	Mfrs. Warehouse	Corn bran, wheat bran, wheat shorts, ground wheat screen- ings 5%	Below guaranty in pro- tein. Corn meal present.
22	Robert Jackson Hdw. Co. Dixon.	Wheat bran, corn meal, corn bran	Below guaranty in fat. Considerable fine mid- dlings or low grade flour present.
21	Mfrs. Warehouse	Wheat bran, wheat shorts, corn bran	
21	Smith & Mitchell..... Georgetown.	Same	
21	Smith-Chadwell & Co. ... Middlesboro.	Wheat bran, wheat shorts, ground wheat screenings 5%, corn bran, corn meal, ground wheat screen- ings 2%	Below guaranty in pro- tein and above in fiber.
20	Henderson Feed & Com- mission Co., Henderson	Wheat bran, wheat middlings, corn bran	
22	Mfrs. Warehouse	Same	Below guaranty in pro- tein.
22	F. H. Gordon..... Richmond.	Wheat bran, wheat middlings, corn bran, ground wheat screen- ings 5%, ground corn screen- ings 2%	
22	J. R. Tully	Wheat bran, wheat middlings, corn bran	Below guaranty in pro- tein.
20	Mfrs. Warehouse	Wheat bran, corn bran, ground wheat screenings 5%.....	Wheat middlings and corn meal present. Much too low in pro- tein. Inferior to guar- antee.
22	Tapp & Townsend..... Tilden.	Wheat bran, corn bran, unground wheat screenings 5%.....	Below guaranty in pro- tein.
21	Ballard Bros. LaGrange.	Wheat bran, wheat shorts, corn bran, ground wheat screenings 2%	Above guaranty in fiber.
22	Mfrs. Warehouse	Same	Below guaranty in pro- tein and above in fiber.
21	Lester Crawford & Baugh Science Hill.	Wheat bran, wheat middlings, corn bran, ground wheat screen- ings 5%	Below guaranty in pro- tein. Inferior to guar- anty. Corn meal present.
21	R. T. Elliott..... Somerset.	Same	In addition to guaranty this feed contains corn meal. Below guaranty in both protein and fat.
21	James Drake	Wheat bran, wheat shorts, wheat middlings, corn bran 5%, ground wheat screenings 3%	

TABLE VII.—MIXED FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
1194-22	Mixed Feed	E. F. Spears & Son.....	14.25	3.60
		Paris, Ky.	14.50	4.50
1465-22	Mixed Feed	Star Milling Co.	13.88	5.20
		Clinton, Ky.	13.25	4.40
1465-22	Same	Same	13.38	5.10
			13.25	4.40
1465-20	Same	Same	15.19	4.47
			14.50	4.00
1465-21	Same	Same	13.88	4.66
			14.50	4.00
1465-21	Same	Same	13.25	4.15
			14.25	4.40
325-22	Mixed Feed	Star Roller Mills.....	13.25	5.69
		Cloverport, Ky.	14.50	4.25
1504-22	Mixed Feed	Stephensport Mill & Elev. Co. .	13.38	3.95
		Stephensport, Ky.	13.75	4.10
1504-22	Same	Same	13.63	3.30
			13.75	4.10
3149-21	Tate & Co.'s Feed.....	J. H. Tate & Co.	15.25	4.68
		Monticello, Ky.	15.31	4.45
907-19	Purity Mill Feed.....	Van Hoose Adams Co.	12.31	5.86
		Ashland, Ky.	14.31	6.71
285-21	Woolcott's Mixed Feed.....	Woolcott Flour Mills	14.63	3.90
		Lexington, Ky.	15.50	3.73
285-21	Same	Same	14.69	3.65
			15.50	3.73
285-21	Same	Same	14.50	3.72
			15.50	3.73
285-22	Same	Same	14.50	3.81
			15.50	3.73
285-22	Same	Same	13.88	4.80
			15.50	3.73

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
22	Mfrs. Warehouse	Wheat bran, wheat shorts, wheat middlings, corn bran 5%, ground wheat screenings 3%.	
22	Jewell Bros. Clinton.	Soft winter wheat bran, soft winter wheat middlings, corn bran, ground corn, ground wheat screenings 2%	Below guaranty in protein. No wheat middlings found. Unground wheat screenings containing cheat, in excess of 2%.
22	W. T. Grissom..... Hickman.	Same	Above guaranty in fiber.
20	Mfrs. Warehouse	Same	Unground wheat screenings present.
21	J. A. Shaver & Co. Mayfield.	Same	Below guaranty in protein and above in fiber. No wheat middlings found. Unground wheat screenings in excess of 2%.
21	Mfrs. Warehouse	Same	Below guaranty in protein. Feed contains corn meal and unground wheat screenings.
22	Mfrs. Warehouse	Wheat bran, wheat middlings, corn bran, wheat screenings 5%	Below guaranty in protein. Corn meal present.
22	Stearman & Harsley.... Garfield.	Middlings, bran, corn bran, ground wheat screenings 5%	Below guaranty in protein. Ground wheat screenings in excess of 5%.
22	Geo. J. Neff..... Guston.	Same	Below guaranty in fat. Ground wheat screenings in excess of 5%.
21	Mfrs. Warehouse	Wheat bran, wheat middlings, corn bran, ground wheat screenings 2%	
19	Mfrs. Warehouse	Wheat middlings, wheat bran, corn bran	Below guaranty in both protein and fat.
21	Caudill, Hall & Co. Morehead.	Wheat bran, wheat shorts, wheat middlings, corn bran, ground wheat screenings 2%	Below guaranty in protein.
21	R. P. Coffman..... Walton.	Same	Below guaranty in protein. Unground wheat screenings containing cheat present.
21	Rowlett & Sons	Same	Below guaranty in protein. Unground wheat screenings present.
22	Hill Congleton & Son... Beattyville.	Same	Same.
22	Powell Mercantile Co. .. Stanton.	Same	Below guaranty in protein.

TABLE VII.—MIXED FEED

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
285-22	Woolcott's Mixed Feed.....	Woolcott Flour Mills..... Lexington, Ky.	13.38 15.50	4.3 3.73
285-23	Same	Same	13.38 15.50	4.09 3.73
4015-22	Mixed Mill Feed	P. J. Weisenberger & Son..... Midway, Ky.	14.38 14.87	5.1 4.85
4015-22	Same	Same	13.81 14.87	4.92 4.85
1226-21	Cream Feed	Same	14.44 14.71	4.73 5.19
1964-22	National	A. P. White & Co. Cadiz, Ky.	15.38 15.00	4.69 4.50
22-21	Mixed Feed	Winchester Roller Mills..... Winchester, Ky.	15.25 15.50	4.12 4.00
22-22	Same	Same	15.00 15.50	4.67 4.00
22-22	Same	Same	14.38 15.50	4.22 4.00
22-23	Same	Same	14.13 15.50	5.34 4.00
3054-22	"Winner Brand" Fine Feed....	Winer Mill Co. Chattanooga, Tenn.	14.38 14.00	4.40 5.00
1564-22	Mixed Feed	Young & Bishop..... Providence, Ky.	14.63 13.00	4.23 5.00
1699-22	Bonanza	J. W. Zaring Grain & Mill Co.. Richmond, Ky.	14.38 15.50	5.90 4.75
Mixed Middlings.				
2665-20	Fancy White Wheat & Rye Mid- dlings and Screenings.....	Gwinn Bros. & Co. Huntington, W. Va.	12.38 16.00	4.67 4.00
2665-20	Same	Same	15.38 16.00	4.15 4.00
2665-20	Same	Same	14.13 16.00	4.36 4.00

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
22	J. P. Wright..... Salt Lick.	Wheat bran, wheat shorts, wheat middlings, corn bran, ground wheat screenings 2%.....	Below guaranty in protein.
23	Owen & Ducker Butler.	Same	Below guaranty in protein. Unground wheat screenings, barley hulls and chaff present. Inferior to guaranty.
22	Roszell Bros..... Lexington.	Wheat bran, wheat middlings, corn bran, ground wheat screenings 15%	Corn meal present.
22	O. N. Smith & Co. Frankfort.	Same	Below guaranty in protein.
21	Same	Wheat bran, corn bran.....	Wheat middlings and unground wheat screenings present.
22	Trigg County Feed & Produce Co., Cadiz.	Wheat bran, corn bran, wheat middlings, shipstuff, ground wheat screenings 2%	Unground wheat screenings present.
21	Morehead Produce Co. .. Morehead.	Wheat bran, corn bran, ground wheat screenings 5%.....	Wheat middlings present.
12	John Roark & Son Poor Fork.	Same	Below guaranty in protein.
22	B. Tipton Ravenna.	Same	Below guaranty in protein. Wheat middlings present.
23	Acme By-Products Coal Co., Fleming.	Same	Much below guaranty in protein. Corn meal present.
22	Jellico Grocery Co. Harlan.	Wheat bran, wheat shorts, corn feed meal	Below guaranty in fat and above in fiber.
22	J. B. Benjamin & Son... Providence.	Wheat bran, corn bran, ground wheat screenings 5%.....	Below guaranty in fat.
22	J. C. Howerton..... Beattyville.	Wheat bran, wheat middlings, corn bran, ground wheat screenings 5%	Below guaranty in protein. Corn meal present.
20	Nunnery & Smith..... Prestonsburg.	Wheat middlings, rye middlings, low grade flour, ground wheat screenings 2%	Adulterated with ground corn bran and corn meal. Low in protein. Inferior to guaranty.
20	The Consolidation Coal Co., Van Lear.	Same	Below guaranty in protein. Adulterated with corn bran and corn meal.
20	Same	Same	No rye middlings found. Corn meal and corn bran present. Below guaranty in protein. Not as guaranteed.

TABLE VII.—MIXED FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
2665-21	Fancy White Wheat and Rye Middlings and Screenings.....	Gwinn Bros. & Co.....	13.63	4.36
		Huntington, W. Va.	16.00	4.00
1266-21	Lotus Wheat & Rye Middlings...	Keister Milling Co.	14.63	3.86
		Huntington, W. Va.	15.00	3.75
1266-21	Same	Same	14.50	3.68
			15.00	3.75
1266-21	Same	Same	16.50	4.76
			15.00	3.75
1266-21	Same	Same	16.56	4.09
			15.00	3.75
	Palmo Middlings.			
1878-20	Palmo Middlings	Newsome Feed & Grain Co. .. Pittsburg, Pa.	16.25	7.38
			16.00	7.00
1878-22	Same	Same	14.25	4.55
			16.00	7.00

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
-21	H. H. Borders..... Catlettsburg.	Wheat middlings, rye middlings, low grade flour, ground wheat screenings 2%	No rye middlings found. Adulterated with ground corn bran. In- ferior to guaranty. Be- low guaranty in pro- tein.
-21	Pikeville Grocery Co. ... Pikeville.	Wheat middlings, rye middlings.	Excess of ground wheat bran, ground wheat screenings, ground barley, ground weed seeds, oat hulls, and corn product present.
-21	Wheeler Grocery Co. ... Paintsville.	Same	Contains ground wheat bran, ground barley, ground wheat screen- ings, corn product and oat hulls.
-21	Burnam Roberts	Same	Ground wheat screen- ings containing ground weed seeds, present. High in fiber.
-21	F. F. Williams..... Garrett.	Same	Above guaranty in fiber.
-20	H. T. Edwards..... Campbellsville.	Wheat middlings, rye middlings, palm oil	
-22	Eminence Milling Co. ... Eminence.	Same	Below guaranty in pro- tein and fat.

TABLE VIII.—POULTRY FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
	Poultry Grains.			
308-21	E-Z Scratch Feed (without grit)	Acme-Evans Co.	9.88	2.92
		Indianapolis, Ind.	10.00	2.50
4501-23	“Diamond D” Chick Feed.....	Alfocorn Milling Co.	10.38	3.41
		St. Louis, Mo.	10.00	2.50
3742-22	High Fly Scratch Feed.....	Same	9.13	3.14
			9.00	3.00
3578-22	Red Dot Scratch Feed.....	Same	10.25	3.42
			10.00	3.00
3578-22	Same	Same	9.25	3.75
			10.00	3.00
388-22	Tip Top Scratch Feed.....	American Milling Co.	10.63	3.58
		Peoria, Ill.	10.00	2.50
388 23	Same	Same	10.38	3.69
			10.00	2.50
392-23	Tip Top Chick Feed.....	Same	11.38	4.18
			10.00	2.50
1354-22	H. D. Scratch Feed (No Grit)....	The Ansted & Burk Co.	10.19	3.05
		Springfield, Ohio.	11.00	3.00
700-22	Sunkist Scratch Feed.....	Arcady Farms Milling Co.	10.63	3.27
		Chicago, Ill.	10.00	2.50
700-22	Same	Same	10.00	4.04
			10.00	2.50
700-22	Same	Same	9.63	3.99
			10.00	2.50
700-22	Same	Same	9.75	3.22
			10.00	2.50
1783-22	Sunkist Baby Chick Feed.....	Same	11.00	4.37
			10.00	2.50

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
-21	Harvey Stout Fern Creek.	Wheat, corn, kaffir corn, barley, oats	
-23	W. T. Sistrunk & Co. Lexington.	Corn, wheat, millet seed.	Feed is not as guaranteed. 85% cracked corn. Wild buckwheat, weed seeds, wild and pin oats and flax seed present.
-22	W. L. Kimbrough & Son. Guthrie.	Cracked corn, kaffir corn, milo maize, barley, oats (rolled), sunflower seed.	Feed is not as guaranteed. 85% is cracked corn. No sunflower seed, kaffir or milo present.
-22	Yopp Seed Co. Paducah.	Cracked corn, kaffir corn, milo maize, rolled barley, rolled oats	
-22	T. E. Furrie. West Point.	Same	Below guaranty in protein.
-22	Tunis & Co. Lexington.	Wheat, corn, kaffir, barley, oats, wild buckwheat, sunflower seed.	Ingredients not as guaranteed. Pin oats, wild oats and wheat screenings present.
-23	Kenton Hay & Grain Co. Covington.	Same	Ingredients not as guaranteed. No sunflower seed found. Pin oats, wheat screenings and weed seeds present.
-23	Tunis & Co. Lexington.	Cracked wheat, cracked corn, cracked kaffir, millet, pigeon grass, wild buckwheat.	Ingredients not as guaranteed. Weed seeds, wild oats, pin oats, barley, and flax seed found but not guaranteed.
-22	Ashland Supply Co. Ashland.	Wheat, corn kaffir corn, milo maize, barley, sunflower seed, wheat screenings 5%, buck- wheat	Below guaranty in protein.
-22	Brown, Bell & Cowgill. . Lexington.	Wheat, cracked corn, kaffir corn, barley, oats, recleaned wheat screenings 10%, sunflower seed.	No sunflower seed found. Weed seeds present.
-22	Cynthiana Grocery Co. . . Cynthiana.	Same	84% of this feed is corn. No sunflower seed found. Weed seed present.
-22	Arnold, Hamilton & Luxon, Richmond	Same	Same
-22	Cynthiana Grocery Co. . . Cynthiana.	Same	85% of this feed is corn. Pin oats, wild oats, weed seeds found. No sunflower seed found.
-22	D. R. Blythe. Burlington.	Cracked corn, cracked wheat, cracked kaffir corn, recleaned wheat screenings 25%, millet seed, oat groats.	Weed seeds present.

TABLE VIII.—POULTRY FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
1783-22	Sunkist Baby Chick Feed.....	Arcady Farms Milling Co..... Chicago, Ill.	11.00 10.00	3.65 2.50
3543-21	Aubrey's Scratch Feed.....	Aubrey & Co. Louisville, Ky.	9.94 10.00	4.19 3.00
3543-22	Same	Same	10.19 10.00	3.88 3.00
3543-22	Same	Same	10.13 10.00	3.87 3.00
3543-23	Same	Same	10.00 10.00	2.98 3.00
3543-23	Same	Same	10.31 10.00	3.67 3.00
534-20	Daily Egg Poultry Feed (No Grit)	J. J. Badenoach Co. Chicago, Ill.	10.25 9.50	3.31 2.50
2034-22	Ballard's Scratch Feed.....	Ballard & Ballard Co. Louisville, Ky.	10.13 10.00	4.29 2.50
4076-22	Profit Scratch Feed.....	Black & White Milling Co. E. St. Louis, Ill.	10.13 10.00	3.32 2.50
572-19	Perfection Chick Feed.....	Blue Grass Commission Co. ... Lexington, Ky.	9.75 10.85	3.59 3.10
4542-22	"Diamond F" Scratch Feed....	Chapman-Doake Co. Decatur, Ill.	10.63 10.00	2.98 3.00
1972-17	Little Chick Feed.....	Cincinnati Grain & Hay Co. ... Covington, Ky.	11.13 10.85	4.03 3.95
209-21	"Diamond C" Hen Feed.....	The Corno Mills Co. St. Louis, Mo.	9.88 10.00	3.68 3.00
231-21	Corno Hen Feed.....	Same	8.46 10.00	2.89 3.00
232-22	Corno Chick Feed.....	Same	9.69 10.00	3.45 3.00
205-21	Nutro Hen Feed.....	Same	9.88 10.00	3.76 3.00

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
22	The Kenton Hay & Grain Co., Covington	Cracked corn, cracked wheat, cracked kaffir corn, recleaned wheat screenings 25%, millet seed, oat groats.....	Weed seeds present. Oats present are pin oats.
21	Duncan & Co..... Pewee Valley.....	Wheat, corn, oats, kaffir corn, milo maize, sunflower seed....	
22	Lewis & Drye..... Lebanon.	Same	A large per cent is cracked corn. No sunflower seed present.
22	G. M. Lawson..... Hazard.	Same	Feed not as guaranteed. 82% is cracked corn. Wild oats, pin oats, and weed seeds present. No sunflower seed found.
23	M. Woosley & Son Elizabethtown.	Same	74% is cracked corn. Wheat of inferior grade used. Wild oats found.
23	Franklin Kentucky Mills Co., Franklin	Same	Not as guaranteed. Cracked corn in large amount. Wheat of inferior grade. Millet, wild buckwheat, weed seeds, flax seed, wild and pin oats present ⁺ but not guaranteed.
20	Bush & Prichard..... Ashland.	Wheat, cracked corn, kaffir corn, barley, oats, sunflower seed, milo	Oats are pin oats and wild oats.
22	G. C. Shaw..... Frankfort.	Cracked corn, wheat, clipped oats, barley, buckwheat, milo, sunflower seed.....	70% is cracked corn. Wheat screenings and cheat present.
22	J. H. Fedders & Son.... Covington.	Cracked corn, milo maize, kaffir corn, barley, wheat, buckwheat, sunflower seed.	
19	Mfrs. Warehouse	Cracked wheat, cracked kaffir corn, cracked corn, hulled oats, millet seed, grit 5%....	Below guaranty in protein.
22	Cincinnati Grain & Hay Co., Covington	Screened cracked corn, kaffir milo, wheat, barley, sunflower seed.	Wild oats, pin oats, and corn cockle present but not guaranteed. No sunflower seed.
17	Boone Co. Farm Bureau. Burlington.	Cracked corn, wheat, kaffir corn, milo maize, millet seed.....	Above guaranty in fiber. Weed seeds present.
21	Joe Lovett Williamsburg.	Wheat, cracked corn, barley, oats, kaffir corn	Buckwheat present.
21	The H. T. Hackney Co.. Middlesboro.	Cracked corn, wheat, kaffir, barley, sunflower seed.....	Buckwheat present but not guaranteed. Below guaranty in protein.
22	Same	Cracked corn, cracked wheat, cracked kaffir, millet.....	
21	Wm. Addams Cynthiana.	Wheat, cracked corn, barley, oats, kaffir corn	

TABLE VIII.—POULTRY FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
3657-22	Evansville Scratch Feed.....	Diamond Mills Evansville, Ind.	10.25 9.00	4.52 2.00
3657-22	Same	Same	11.38 9.00	3.97 2.00
3657-21	Red Crown Scratch Feed.....	Same	10.13 9.00	4.15 2.00
3566-22	Rex Scratch Feed.....	Early & Daniel Co. Cincinnati, Ohio.	10.38 10.00	2.70 2.50
599-20	Tuxedo Scratch Feed.....	Same	10.25 10.00	3.07 2.50
4239-22	Tuxedo Pigeon Feed.....	Same	13.94 10.00	5.52 2.50
4408-22	"We-Kno" Scratch Feed.....	Oscar Farmer & Sons..... Louisville, Ky.	10.25 10.00	3.78 2.50
2233-22	P. D. Q. Scratch Feed.....	Ferncliff Feed & Grain Co. Louisville, Ky.	10.50 10.00	3.27 2.50
4162-23	P. D. Q. Chick Feed.....	Same	10.13 10.00	3.16 2.00
1974-21	Energy Scratch Feed.....	Golden Grain Milling Co. E. St. Louis, Ill.	9.13 10.00	3.16 3.00
3825-22	King Bee Scratch Feed.....	Harrison Milling Co. Harrison, Ohio.	10.13 10.00	3.23 3.00
1239-21	Peerless Scratch Feed.....	P. H. Harsha Portsmouth, Ohio.	11.13 11.30	3.02 2.60
971-19	Golden Scratch Feed (No Grit)..	W. E. Hess & Co. Louisville, Ky.	10.00 10.39	4.20 3.19
2998-21	Homestead Scratch Feed.....	Illinois Feed & Elevator Co. ... Bloomington, Ill.	10.75 9.00	3.76 3.50
2998-22	Same	Same	10.81 9.00	3.30 3.50

ANALYSES OF INSPECTORS' SAMPLES.

SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
2 Finley Hardware Co.... Madisonville.	Wheat, corn, kaffir, milo, sunflower seed, miscellaneous weed seeds 8%.....	Large per cent is cracked corn. No sunflower seed present.
2 Ira Rea Earlington.	Same	Same
1 Finley Hardware Co.... Madisonville.	Same	
2 The Mahan Co. Winchester.	Wheat, corn, oats, buckwheat, kaffir corn, barley.....	75% is cracked corn. Small per cent cheat present.
0 Kentucky River Coal & Feed Co., Irvine.....	Corn, wheat, oats, sunflower seed, barley, buckwheat, kaffir corn.	Wheat screenings, pin oats, and small per cent weed seeds present.
2 G. C. Shaw..... Frankfort.	Canada peas, milo, kaffir corn, wheat, buckwheat, hemp, millet, cracked corn.....	No cracked corn present. Approximately 60% of sample is milo and kaffir.
2 O. N. Smith & Co..... Frankfort.	Wheat, corn, kaffir corn, barley, oats, sunflower seed.....	No sunflower seed present. 70% of sample is corn.
2 Geo. W. Riedling..... Louisville.	Cracked corn, wheat, milo maize, barley, oats, wild buckwheat, wheat screenings 20%.....	Ingredients not as guaranteed.
3 D. A. Davis & Son..... Jeffersontown.	Cracked wheat, millet, cracked corn, cracked kaffir, wild buckwheat.	75% is cracked corn. Weed seeds, flax seed, pin oats and wild oats present, but not guaranteed.
1 Renfro Supply Co..... Williamsburg.	Wheat, cracked corn, kaffir corn, barley, milo maize, whole buckwheat.	Below guaranty in protein. No buckwheat present.
2 Kenton Hay & Grain Co. Covington.	Cracked corn, barley, wheat, oats, cane seed, buckwheat, sunflower seed.	No sunflower seed found. No cane seed found. Pin oats, wild oats, and wheat screenings present.
1 Burg Kinner Greenup.	Cracked corn, wheat, barley, kaffir corn, cane seed, sunflower seed, wheat screenings 3%....	No barley, cane seed or sunflower seed present. Composed largely of wheat and cracked corn. Wheat screenings contain dirt and corn cockle.
9 Mfrs. Warehouse Cynthiana.	Cracked corn, wheat, oats, milo, sunflower seed, buckwheat....	Pin oats present.
1 Crown Jewel Mill. Co. .. Cynthiana.	Cracked corn, wheat, barley, clipped oats, buckwheat, milo maize, sunflower seed.....	Large per cent cracked corn present. Pin oats, wild oats, weed seeds, and wheat screenings present, but not guaranteed. Poor feed and not in accordance with guarantee.
2 Cincinnati Grain & Hay Co., Covington	Same	No sunflower seed present.

TABLE VIII.—POULTRY FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
3486-22	Special Scratch Feed.....	Illinois Feed & Elevator Co.... Bloomington, Ill.	9.38 9.00	4.12 3.00
1002-20	International Jewel Chick Feed..	International Sugar Feed No. 2 Co., Minneapolis, Minn.	11.75 10.00	3.44 3.00
3386-21	Kentucky Star Scratch Feed....	Kentucky Feed & Grain Co. ... Louisville, Ky.	9.75 9.00	3.37 2.50
3386-21	Same	Same	9.50 9.00	3.33 2.50
3386-21	Same	Same	9.31 9.00	3.42 2.50
3386-23	Same	Same	9.63 9.00	2.61 2.50
4415-22	Sedan Scratch Feed.....	Same	9.75 9.00	4.28 2.50
1761-22	Premo Scratch Feed.....	Same	10.00 9.00	3.43 2.50
2670-21	Premo Baby Chick Feed.....	Same	12.75 10.00	4.74 2.50
2670-21	Same	Same	9.63 10.00	3.14 2.50
2670-23	Same	Same	9.88 10.00	3.68 2.50
2670-23	Same	Same	10.31 10.00	3.84 2.50
2670-23	Same	Same	10.38 10.00	3.88 2.50
407-21	Nonesuch Poultry Feed.....	Louisville Cereal Mill Co. Louisville, Ky.	10.38 10.00	3.73 2.50
407-22	Same	Same	10.63 10.00	3.18 2.50
407-23	Same	Same	10.13 10.00	2.98 2.50
407-23	Same	Same	10.25 10.00	3.35 2.50

ANALYSES OF INSPECTORS' SAMPLES.

SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
22 Covington Grain & Hay Co., Covington.....	Wheat, cracked corn, barley, buckwheat, milo, sunflower seed.	
20 M. T. Henderson..... Owensboro.	Cracked corn, cracked wheat, kaffir corn, oats, millet, grain screenings 10%.	Considerable weed seeds and pin oats present.
21 Engle & Given Coal Co., Inc., Lexington	Cracked corn, milo, clipped barley, wheat	Inferior wheat used.
21 Same	Same	
21 Woosley & Son	Same	
23 Elizabethtown.	Same	
23 Edward Oehrle	Same	73% is cracked corn. Small amount of oats used.
23 Louisville.		
22 Midget Milling Co..... Providence.	Clipped barley, kaffir, oats, cracked corn	85% is cracked corn. Wheat, wild oats and small amount weed seeds present, but not guaranteed.
22 Lexington Seed Co..... Lexington.	Wheat, cracked corn, kaffir corn, barley, sunflower seed.....	Oats present but not guaranteed.
21 Perry Feed & Com. Co.. Hazard.	Wheat, cracked corn, oats, kaffir corn, barley, sunflower seed....	Adulterated with 35% weed seeds.
21 Lexington Seed Co..... Lexington.	Cracked wheat, cracked corn, cracked kaffir corn, whole millet.	No kaffir corn found. Weed seeds present.
23 C. D. Miller..... Louisville.	Same	75% is cracked corn. Weed seeds, and pin oats present.
23 E. S. Ferrell	Same	75% is cracked corn. Wheat of inferior grade. Wild buckwheat, weed seeds, flax seed and pin oats present.
23 Buffalo.		
23 M. Woosley & Son..... Elizabethtown.	Same	Same
21 R. J. Smith Co..... Somerset.	Wheat, cracked corn, oats, kaffir corn, barley, sunflower seed....	No barley present. Weed seeds and wheat screenings present.
22 Jellico Grocery Co..... Corbin	Same	Wheat used is of inferior grade. No barley found. Small amount weed seeds present.
23 Frank Kernen	Same	74% is cracked corn. No sunflower seed present. Weed seeds present.
23 Louisville.		
23 Enterprise Gro. & Feed Co., Buechel	Same	75% of sample is cracked corn. No oats or sunflower seed found.

TABLE VIII.—POULTRY FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
4707-23	Nonesuch Baby Chick Feed.....	Louisville Cereal Mill Co..... Louisville, Ky.	10.38 11.40	2.82 2.75
3269-21	Grade A Scratch Feed.....	Miller McConnel Grain Co. Kansas City, Kans.	10.38 10.00	3.15 2.50
3269-21	Same	Same	10.00 10.00	3.00 2.50
3270-21	Grade A Chick Feed.....	Same	9.88 10.00	3.45 2.50
145-21	Park Scratch Grains.....	The Nutritia Co. Cincinnati, Ohio.	10.38 10.00	2.87 3.00
3541-22	Pioneer Hen Scratch.....	Omaha Alfalfa Milling Co..... Omaha, Neb.	9.63 10.00	3.40 2.50
3717-22	Plymouth Rock Hen Scratch.....	Same	10.13 10.00	3.45 2.50
1151-20	Red Ribbon Chick Feed.....	The Park & Pollard Co. Chicago, Ill.	9.63 10.00	2.40 2.09
4356-22	Peter's Cheep Chick Scratch Poul- try Feed	M. C. Peters Mill Co. Omaha, Neb.	11.75 10.00	3.71 3.00
4356-22	Same	Same	11.50 10.00	4.38 3.00
2689-21	Red Crown Scratch Feed.....	Prairie State Milling Co. Chicago, Ill.	10.63 9.00	3.61 2.50
4406-22	"Circle A" Scratch Feed.....	Pratt Food Co. Philadelphia, Pa.	10.50 10.00	3.46 2.50
4393-22	Pratt's Supreme Large Size Scratch	Same	11.38 10.00	3.26 2.50
4202-22	Victory Scratch Feed,—Large Size	Same	11.13 10.00	3.91 2.50
4699-23	Hexite Chick Feed.....	Purity Oats Co. Chicago, Ill.	9.50 9.00	2.10 2.50
835-21	Ful-O-Pep Scratch Grains.....	The Quaker Oats Co. Chicago, Ill.	9.56 10.00	1.89 2.50

ANALYSES OF INSPECTORS' SAMPLES.

SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS--VARIANCE FROM GUARANTY
Harvey Stout & Sons.... Buechel.	Fine ground kaffir corn, fine ground corn, fine ground wheat.	Below guaranty in protein. 75% of sample is cracked corn.
Edwin C. Hawkins..... Paducah.	Cracked corn, kaffir, milo, barley, sunflower seed, unground wheat screenings 5%.....	No sunflower seed present. Damaged wheat used in the form of screenings.
Same	Same	Same.
Same	Cracked corn, cracked kaffir, cracked milo, millet seed, unground wheat screenings 5%.	Damaged wheat used in the form of screenings.
T. L. Hardy..... Berry.	Wheat, cracked corn, oats, kaffir corn, sunflower seed, barley.	Buckwheat present. Inferior grade of wheat used.
J. W. James Grocery Co. Franklin.	Corn, oats, barley, kaffir, milo, wheat	
J. B. Evans, Jr. Clinton.	Corn, oats, barley, milo, kaffir, wheat	
George Keller..... Newport.	Cracked corn, cracked wheat, cracked oats, cracked kaffir corn, whole millet seed.	85% is cracked corn. Not as guaranteed. Buckwheat and weed seeds present. No millet, no oats present.
The Mahan Co..... Winchester.	Corn, wheat, kaffir, milo, wild buckwheat	60% is cracked corn. Small amount weed seeds present.
Owensboro Milling Co... Owensboro.	Same	Weed seeds present.
Kenton Hay & Grain Co. Latonia.	Wheat, sifted cracked corn, barley, oats, kaffir corn, buckwheat, sunflower seed.....	The wheat used is of poor grade.
Louisville Hay & Gr. Co. Louisville.	Cracked corn, wheat, buckwheat, milo, kaffir, barley, sunflower seed.	Large per cent of the sample is cracked corn. Only a trace of sunflower seed and oats present.
Same	Wheat, oats, cracked corn, barley, kaffir, milo, buckwheat, sunflower seed.	Same.
Same	Same	A large per cent of sample is cracked corn. Only a trace of oats and kaffir present.
Oscar Farmer & Sons.... Louisville.	Cracked wheat, cracked kaffir corn, cracked corn, millet....	75% of sample is cracked corn. Small amount millet present. Small amount weed seed found but not guaranteed.
A. Schneider Sons..... Louisville.	Whole wheat, whole barley, whole kaffir, cracked Indian corn, whole buckwheat, sunflower seed ½%.	

TABLE VIII.—POULTRY FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
296-20	Purina Scratch Feed.....	Ralston Purina Co.	10.13	3.37
		St. Louis, Mo.	10.00	2.50
2604-20	Purina Hen Chow (Scratch Feed)	Same	10.63	3.37
			10.00	2.50
298-20	Purina Chick Feed.....	Same	10.13	2.67
			10.00	2.50
2603-20	Purina Baby Chick Chow Feed...	Same	10.19	2.87
			10.00	2.50
427-21	Rapier's Blue Hen Scratch Feed..	Rapier Sugar Feed Co.	10.50	3.37
		Owensboro, Ky.	10.00	2.00
427-22	Same	Same	10.06	2.97
			10.00	2.00
427-22	Same	Same	10.50	3.27
			10.00	2.00
427-22	Same	Same	9.63	3.77
			10.00	2.00
2936-22	Magnolia Scratch Feed.....	R. D. Riedling.....	10.63	4.03
		Louisville, Ky.	10.19	2.67
2936-22	Same	Same	10.50	4.03
			10.19	2.67
4183-22	Magnolia Chick Feed.....	Same	11.63	2.87
			10.52	4.31
1166-22	Shur-Pleez Scratch Feed.....	Ritter-Hennings Co.	11.63	3.37
		Louisville, Ky.	10.53	3.83
1174-22	Pleez-O-Scratch Feed.....	Same	11.00	3.87
			10.00	3.12
1167-23	Shur Pleez Baby Chick Feed.....	Same	12.13	5.78
			10.53	3.83
4147-23	Velvet Chick Feed.....	Robey Mills	12.50	5.29
		Chicago, Ill.	10.00	2.50
4147-23	Same	Same	11.00	5.16
			10.00	2.50
4778-23	Rough Rider Scratch Feed.....	The Roosevelt Mills.....	9.50	2.88
		Chicago, Ill.	9.50	1.50

ANALYSES OF INSPECTORS' SAMPLES.

o.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
20	Carter Supply Co..... Lexington.	Wheat, corn, barley, kaffir, milo, buckwheat, sunflower seed...	
20	Martin & Hodgkin Sup- ply Co., Winchester...	Same	
20	Carter Supply Co..... Lexington.	Wheat, corn, kaffir, milo, millet..	
20	Jellico Grocery Co..... Harlan.	Same	
21	Trent & Bruner..... Irvington.	Corn, wheat, barley, oats, kaffir, sunflower seed	
22	Woosley & Son..... Elizabethtown.	Same	Cracked corn present in large amount. The wheat is of inferior grade.
22	Trent & Bruner..... Irvington.	Same	Cracked corn present in large amount. No sun- flower seed present.
22	Bell Grocery Co..... Pineville.	Same	Large per cent is cracked corn. Poor grade of wheat used. Only a trace of sunflower seed.
22	W. W. Shadburne..... Louisville.	Corn, wheat, barley, kaffir, oats..	75% of sample is cracked corn. No barley or oats present.
22	Mfrs. Warehouse	Same	80% is cracked corn. No barley or oats.
22	Same	Cracked corn, cracked wheat, millet seed, flax seed, weed seed 5%	15% wild buckwheat present. Cracked rye and pin oats present but not guaranteed. Below guaranty in fat.
22	Same	Sunflower seed, wheat, cracked corn, kaffir corn, barley.....	Feed is not as guaran- teed. Rye, weed seeds, and wheat screenings present but not guar- anteed.
22	Same	Kaffir corn, oats, cracked corn, sorghum seed, sunflower seed, wheat screenings 15%, wheat, barley.	Feed is not as guaran- teed. No sorghum seed found. Rye and weed seeds present.
23	Same	Millet seed, cracked wheat, pin head oats, flax seed, cracked corn, recleaned screenings and wild grass seed 25%.....	Feed is not as guaran- teed. Adulterated with 20% weed seeds.
23	Cynthiana Grocery Co... Cynthiana.	Cracked wheat, cracked corn, cracked kaffir corn, millet, cracked milo maize, hulled oats, wheat and barley screen- ings 10%	Weed seeds present.
23	Arnold, Hamilton & Luxon Richmond.	Same	Same.
23	George Keller	Cracked corn, wheat, kaffir corn, barley, oats, milo maize.....	77% of sample is cracked corn. Small per cent buckwheat present.

TABLE VIII.—POULTRY FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
2685-23	Advance Chick Scratch Feed (No Grit)	Rosenbaum Bros.	10.25	3.7
		Chicago, Ill.	10.00	2.0
1271-19	Vitality Scratch Feed.....	Same	10.69	2.8
			10.00	2.5
3776-22	Everyday Scratch Feed.....	Rudy-Patrick Seed Co.....	10.38	3.9
		Kansas City, Mo.	8.50	3.0
3777-22	Everyday Chick Feed.....	Same	9.63	3.6
			9.00	3.4
3777-22	Same	Same	10.13	3.2
			9.00	3.4
3573-21	Shield Brand Baby Chick Feed...	A. W. Schisler F. & G. Seed Co.	11.81	3.6
		St. Louis, Mo.	10.00	2.5
1491-23	Atlas Chick Feed.....	Southern Seed Co.	11.75	4.7
		Louisville, Ky.	10.00	3.0
3458-22	"Diamond S" Scratch Feed....	Same	10.31	4.05
			10.00	2.50
3458-21	Same	Same	9.81	3.05
			10.00	2.50
3875-21	King Bee Scratch Feed.....	N. E. Squibb & Co.	10.50	3.65
		Cincinnati, Ohio.	10.00	3.00
2019-23	Ideal Scratch Feed.....	The Sugarine Co., Inc.	9.75	3.17
		Owensboro, Ky.	10.00	2.50
4102-22	Ideal Chick Feed.....	Same	10.88	3.71
			10.00	2.50
4102-22	Same	Same	10.94	3.83
			10.00	2.50
4102-22	Same	Same	11.00	3.84
			10.00	2.50
4102-22	Same	Same	11.13	3.90
			10.00	2.50
4102-22	Same	Same	10.00	3.17
			10.00	2.50
4102-22	Same	Same	10.13	3.65
			10.00	2.50

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
-23	Woodford Spears & Sons Paris.	Cracked wheat, sifted cracked corn, cracked kaffir, millet seed.	
-21	J. H. Fedders & Sons... Covington.	Wheat, sifted cracked corn, kaffir corn, barley, oats, sunflower seed, buckwheat.....	The wheat used is of poor grade.
-22	Smith & enrod..... Greenville.	Milo maize, kaffir corn, wheat, wheat screenings 20%.....	
-22	Edwin C. Hawkins..... Paducah.	Cracked corn, cracked milo maize, cracked kaffir corn, cracked cane, millet, cracked wheat, wheat screenings 20%.	Wheat screenings contain weed seeds.
-22	Same	Same	Not labeled according to law.
-21	E. L. Martin & Co..... Lexington.	Corn, wheat, milo, kaffir, millet, clover, screenings 5%.....	Contains wheat screenings and clover screenings, with considerable weed seeds, in excess of 5%
-23	Watts, Laws & Preston.. Perryville.	Wheat, corn, oats, millet, kaffir corn, milo maize, recleaned wheat screenings unground 15%	Contains 5% weed seeds. No recleaned unground wheat screenings found.
-22	Same	Wheat, corn, oats, kaffir corn, milo maize, recleaned wheat screenings 10%, sunflower seed.	A large per cent is cracked corn. No sunflower seed found.
-21	Farmers' Milling Co.... Somerset.	Same	Only a trace of oats and sunflower seed.
-21	Kroger Grocery Co..... Newport.	Cracked corn, barley, wheat, oats, milo, kaffir corn, sunflower seed, buckwheat,	No sunflower seed present.
-23	Lexington Seed Co..... Lexington.	Wheat, cracked corn, kaffir, barley, buckwheat, sunflower seed.	97% of sample is cracked corn, and barley, 1% wheat, 1% kaffir corn, 1% buckwheat. No sunflower seed found.
-22	Anderson & Spilman.... Danville.	Corn, kaffir, wheat, wild buckwheat, millet	Oat groats and barley present. The wheat used is of inferior grade.
-22	Elkin & Kimmel..... Greenville.	Same	Weed seeds present.
-22	C. S. Brent & Co..... Lexington.	Same	Inferior wheat used. Contains some weed seeds.
-22	S. A. Glass..... Lexington.	Same	Same.
-22	Sandusky Bros. Co..... Harrodsburg.	Same	80% of sample is cracked corn, wheat used is of inferior grade. Contains a small amount weed seeds.
-22	Anderson & Spilman.... Danville.	Same	Same.

TABLE VIII.—POULTRY FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
4102-22	Ideal Chick Feed.....	The Sugarine Co., Inc. Owensboro, Ky.	10.00 10.00	3.42 2.50
4102-23	Same	Same	9.75 10.00	2.87 2.50
4102-23	Same	Same	10.13 10.00	1.81 2.50
4102-23	Same	Same	9.88 10.00	3.19 2.50
4102-23	Same	Same	9.75 10.00	3.02 2.50
1191-20	Prize Poultry Feed.....	Sutherland Flour Mills Co. Cairo, Ill.	10.25 10.00	2.79 3.50
3343-21	Ubiko Scratch Feed.....	The Ubiko Milling Co. Cincinnati, Ohio.	10.75 10.00	3.55 2.50
3343-21	Same	Same	10.38 10.00	3.86 2.50
2569-22	Special Scratch Feed.....	Wood, Stubbs & Co. Louisville, Ky.	11.31 9.00	3.44 2.00
1751-21	200 Egg Scratch Feed.....	Same	10.75 10.00	4.24 2.50
1751-21	Same	Same	10.44 10.00	3.23 2.50
1750-19	200 Egg Chick Feed.....	Same	11.00 10.00	3.81 3.00
1750-20	Same	Same	10.69 10.00	3.54 2.50
	Poultry Mash.			
4310-22	Acme Egg Mash (With Milk Albumen)	Acme-Evans Co. Indianapolis, Ind.	19.38 15.50	4.99 3.50

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
22	Pendleton Flour Mills... Falmouth.	Corn, kaffir, wheat, wild buck- wheat, millet	Same.
23	R. J. Smith & Co..... Somerset.	Same	Same.
23	Amos Yaeger Louisville.	Same	80% of sample is cracked corn. Small amount of weed seeds present.
23	Lexington Seed Co..... Lexington.	Same	80% of sample is cracked corn. Small amount of weed seeds and pin oats present.
23	Bryan Hunt Co..... Lexington.	Same	80% of sample is cracked corn. Small amount of flax seed and weed seeds. Wheat of in- ferior quality used. Not as guaranteed.
20	Wilson-Butt Co..... Hickman.	Cracked corn, wheat, barley.....	Below guaranty in fat. Wheat of inferior quality used.
21	J. H. Fedders & Sons.... Covington.	Corn, wheat, oats, barley, buck- wheat, kaffir corn, sunflower seed	Only a trace of sun- flower seed. Not in appreciable amount and therefore regarded as not present.
21	J. S. Wilson & Son..... Paris.	Same	70% of sample is cracked corn.
22	Eminence Milling Co.... Eminence.	Corn, kaffir, milo maize, wheat, oats, recleaned grain screen- ings 30%	74% of sample is cracked corn. The remainder appears to be screen- ings from the follow- ing grains: 4% oats, 4% barley, 4% rye, 2% cheat, 2% buck- wheat, 1% kaffir and milo, 2% wheat, 2% wheat screenings, 1% foreign matter and weed seeds, 4% cow peas and soy beans.
21	W. L. Kimbrough & Son. Guthrie.	Corn, kaffir, milo maize, wheat, barley, buckwheat, sunflower seed.	
21	H. J. Grieve..... Louisville.	Same	
19	W. L. Kimbrough & Son. Guthrie.	Corn, kaffir corn, steel cut oats, millet, wheat screenings 40%..	Considerable weed seeds and some pin oats present.
20	Danville Ice & Coal Co.. Danville.	Same	Weed seeds present.
22	Latonia Hay & Grain Co.. Latonia.	Milk albumen, corn meal, corn feed meal, hominy meal, wheat bran, wheat middlings, alfalfa meal, beef scraps, linseed oil meal, ground oats.....	

TABLE VIII.—POULTRY FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
3796-21	High Fly Poultry Mash.....	Alfocorn Milling Co..... St. Louis, Mo.	17.13 19.00	5.22 5.00
4020-22	Alfocorn Poultry Mash.....	Same	21.38 20.00	5.45 5.00
4198-22	Arcady Wonder Mash with Butter- milk	Arcady Farms Milling Co..... Chicago, Ill.	19.75 20.00	4.09 4.50
4836-23	Aubrey's Laying Mash.....	Aubrey & Co. Louisville, Ky.	18.56 20.00	4.56 4.00
2169-19	Egg-A-Day Dry Mash.....	J. J. Badenoch Co..... Chicago, Ill.	21.00 18.00	3.94 3.00
2169-19	Same	Same	22.38 18.00	4.03 3.00
2656-20	Ballard's Poultry Mash.....	Ballard & Ballard Co..... Louisville, Ky.	21.88 20.00	5.04 4.00
3865-21	Egg Insurance Feed.....	Same	24.19 20.00	4.74 4.00
3865-21	Same	Same	22.63 20.00	6.45 4.00
3865-21	Same	Same	21.38 20.00	5.21 4.00
3520-21	Purity Egg Mash.....	Baskett Grain Co. Henderson, Ky.	19.75 22.00	7.63 3.00
2792-22	Egg Maker Poultry Mash.....	Blue Grass Commission Co..... Lexington, Ky.	19.94 25.81	4.97 4.58
4541-22	Lay More Egg Mash	Chapman-Doake Co..... Decatur, Ill.	15.13 18.00	5.47 4.00

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS--VARIANCE FROM GUARANTY
21	W. E. Cook..... Whitesburg.	Wheat bran, wheat middlings, corn meal, rice meal, alfalfa flour, old process linseed meal, granulated meat, salt $\frac{1}{2}\%$	Below guaranty in protein and above in fiber. Alfalfa meal and brewers' dried grains present.
22	W. T. Sistrunk & Co.... Lexington.	Wheat middlings, wheat bran, corn meal, corn gluten feed, alfalfa flour, O. P. linseed oil meal, granulated meat, salt $\frac{1}{2}\%$	Above guarantee in fiber. Alfalfa meal and not alfalfa flour used.
22	Kenton Hay & Grain Co.. Covington.	Meat scraps, corn gluten feed, wheat bran and wheat middlings (with ground screenings), oat meal, alfalfa meal, corn feed meal, cotton seed meal, old process linseed oil meal, dried buttermilk, bone meal, salt $\frac{1}{2}\%$	
23	Franklin Ky. Mills Co.. Franklin.	Wheat shorts, wheat bran, wheat middlings, meat meal, alfalfa meal, linseed oil meal, corn feed meal, charcoal, salt $\frac{1}{2}\%$...	Below guaranty in protein. Unground wheat screenings present.
19	Bush & Prichard..... Ashland.	Fish meal, meat meal, bone, wheat, oats, barley, wheat bran, wheat middlings, alfalfa meal, buckwheat feed, milo maize, corn feed meal, ground grain screenings 5%, calcium phosphate 1%, calcium carbonate 1%, salt.....	Above guaranty in fiber.
19	J. M. Bush..... Ashland.	Same	Ground grain screenings containing considerable weed seeds present. Linseed oil meal present.
20	Henry E. Eilers & Son.. Louisville.	Wheat bran, wheat middlings, corn meal, ground oats, linseed meal, meat meal.....	Alfalfa meal and wheat screenings present. No ground oats found.
21	G. C. Shaw..... Frankfort.	Dried buttermilk, meat meal, wheat bran, wheat middlings, old process linseed meal, alfalfa meal, corn feed meal, charcoal $\frac{1}{4}\%$, salt $\frac{1}{2}\%$	
21	H. E. Eilers & Son..... Louisville.	Same	
21	Louis Diemer	Same	
21	Mfrs. Warehouse	Wheat bran, wheat middlings, corn feed meal, digester tankage, salt 1%.....	Below guaranty in protein.
22	Same	Wheat middlings, meat scraps, linseed meal, charcoal, alfalfa meal, corn meal	This feed is very much below guaranty in protein.
22	The Dorsel Co..... Newport.	Powdered buttermilk, meat scraps, feed meal, bran, wheat middlings, ground oats, alfalfa meal, oil meal.....	No linseed oil meal found. Inferior to guaranty.

TABLE VIII.—POULTRY FEED.

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
3164-21	"No Better" Dry Egg Mash....	Cincinnati Grain & Hay Co.... Cincinnati, Ohio.	21.25 18.37	4.60 4.25
2578-21	Corno Laying Mash.....	The Corno Mills Co..... St. Louis, Mo.	16.88 20.00	4.57 4.75
2578-21	Same	Same	18.75 20.00	4.92 4.75
2889-20	Noco Laying Mash.....	Same	20.19 20.00	5.65 4.75
598-22	Ce-Re-A-Lia Egg Mash.....	Early & Daniel Co..... Cincinnati, Ohio.	21.00 20.00	4.86 5.00
598-22	Same	Same	20.06 20.00	5.65 5.00
4113-22	Tuxedo Buttermilk Growing Mash	Same	19.63 17.00	4.95 4.50
2911-21	P. D. Q. Egg Mash.....	Ferneliff Feed & Grain Co.... Louisville, Ky.	20.94 21.00	5.29 3.50
2911-22	Same	Same	19.88 21.00	4.20 3.50
2911-22	Same	Same	17.94 21.00	5.26 3.50
4751-23	Blue Grass Poultry Mash.....	Henry Fruechtenicht	22.88 20.30	4.58 3.80
		Louisville, Ky.		
4013-22	Eg-Maker Dry Mash.....	Golden Grain Milling Co..... E. St. Louis, Ill.	20.25 18.00	5.47 4.00

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS--VARIANCE FROM GUARANTY
-21	Walton Sanitary Flour Mills, Walton.	Meat scraps, oil meal, rice meal, alfalfa meal, wheat bran, wheat middlings, corn feed meal, ground barley feed.....	
-21	City Scales Lexington.	Corn meal, oat meal, choice alfalfa meal, wheat bran, linseed meal, meat scraps, charcoal 1%.....	Much below guaranty in protein. Only a trace linseed oil meal found.
-21	Louisa Flour & Feed Co.. Louisa.	Same	Below guaranty in protein.
-20	Knox Grocery Co..... Barboursville.	Fine white hominy feed, oat meal, choice alfalfa meal, wheat bran, linseed meal, meat scraps, charcoal 1%.....	Considerable c o r n gluten feed present. No charcoal found.
-22	Farmers' Union Supply Co., Sadiesville.....	Alfalfa leaf meal, linseed oil meal, corn meal, wheat bran, wheat middlings, ground oats, oat meal, beef meal.....	Alfalfa meal and not alfalfa leaf meal used. Ground barley present.
-22	Greene & Duff..... Mt. Sterling.	Same	Feed not as guaranteed but made from following ingredients: wheat middlings, corn gluten feed, corn feed meal, ground o a t s, ground barley, meat scraps with bone, cotton seed meal, alfalfa meal, wheat bran.
-22	W. T. Sistrunk & Co.... Lexington.	Gluten meal, wheat flour, ground oats, oat meal, old process linseed oil meal, alfalfa leaf meal, meat meal, corn meal, wheat middlings, dried buttermilk.	Alfalfa meal and not alfalfa leaf meal used.
-21	Ross & Zeitz..... Louisville.	Meat meal, wheat bran, wheat middlings, corn meal, corn gluten feed, fine ground alfalfa meal.	Only a trace of alfalfa meal found. No wheat bran or corn gluten feed found. Considerable ground screenings containing kafir corn, oat hulls, cheat, weed seeds, wheat, and peanut hulls present.
-22	J. H. Cain..... Brandenburg.	Meat meal, wheat bran, wheat middlings, corn meal, fine ground alfalfa meal.	Below guaranty in protein.
-22	Same	Same	Inferior to guaranty. Much below guaranty in protein.
-23	Boston Flour Mills..... Boston.	Wheat shorts, wheat bran, alfalfa meal, feed meal, oil meal, tankage.	
-22	Conrad J. Clausen..... Louisville.	Dried buttermilk, ground meat scraps, steamed bone meal, O. P. linseed oil meal, corn gluten feed, corn feed meal, wheat middlings alfalfa leaf meal, oat meal.	Alfalfa meal and not alfalfa leaf meal present.

TABLE VIII.—POULTRY FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
4214-22	Wonderfat Shipping Feed.....	Golden Grain Milling Co..... E. St. Louis, Ill.	15.06 12.50	6.40 4.50
4214-22	Same	Same	15.75 12.50	7.58 4.50
4213-22	Wonderfat Station Feed.....	Same	16.25 12.50	5.66 4.50
4213-22	Same	Same	15.00 12.50	5.61 4.50
2633-22	Nutritia Egg Mash.....	The Hawthorne Co..... Cincinnati, Ohio.	18.13 12.00	3.96 4.00
2011-16	Hess Egg Mash.....	W. E. Hess & Co..... Louisville, Ky.	15.44 17.75	4.30 5.43
2217-19	International Jewel Egg Mash....	International Sugar Feed No. 'Two Co., Memphis, Tenn.	18.47 18.00	4.52 5.00
2217-19	Same	Same	18.25 18.00	7.20 5.00
3721-21	Premo Poultry Mash.....	Kentucky Feed & Grain Co.... Louisville, Ky.	23.88 20.00	7.68 8.00
3721-21	Same	Same	18.88 20.00	5.54 8.00
3721-21	Same	Same	24.44 20.00	6.75 8.00
3721-21	Same	Same	24.98 20.00	8.25 8.00
3721-21	Same	Same	25.00 20.00	6.77 8.00
3721-21	Same	Same	21.75 20.00	8.72 8.00
3879-21	Kibler's Poultry Mash.....	F. W. Kibler Milling Co..... Mt. Orab, Ohio.	19.88 18.00	5.25 3.00
4137-22	Kookoo Egg Mash.....	Chas. A. Krause Milling Co.... Milwaukee, Wis.	21.00 20.00	5.52 5.25

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS--VARIANCE FROM GUARANTY
-22	Conrad J. Clausen..... Louisville.	Rolled oats, corn oil cake meal, old process linseed oil meal, flour, ground white corn, wheat middlings, corn feed meal.	
-22	Same	Same	
-22	S. H. Grinstead Co..... Lebanon.	Rolled oats, corn oil cake meal, oat meal, old process linseed oil meal, meat scraps, fine ground white corn.....	
-22	Conrad J. Clausen..... Louisville.	Same	
-22	R. P. Coffman..... Walton.	Wheat bran, wheat middlings, corn meal, old process oil meal, fine ground alfalfa meal, meat scraps.	
-16	Mfrs. Warehouse	Alfalfa meal, bran, cotton seed meal, shorts, feed meal, beef scraps, bone meal, ground oats.	Below guaranty in protein and fat, only a trace of beef scraps and bone meal, no bran or cotton seed meal found.
-19	Calloway County Farm Bureau, Murray.	Meat meal, alfalfa meal, linseed oil meal, corn gluten feed, cotton seed meal, wheat red dog flour, corn feed meal, rice bran, wheat shorts, wheat bran, salt $\frac{1}{2}$ % buttermilk.	
-19	Henderson Feed Store.. Owensboro.	Same	Ground oats and ground wheat screenings present.
-21	Engle & Given Coal Co., Inc., Lexington.	Meat meal, grey shorts, corn feed meal, ground oats, wheat bran.	No ground oats found. Rice bran containing rice hulls present.
-21	Vine Grove Feed Co.... Vine Grove.	Same	Below guaranty in both protein and fat.
-21	H. G. Holkamp..... Louisville.	Same	
-21	J. B. Penn & Co..... Georgetown.	Same	No ground oats found. Rice bran containing rice hulls and ground rice grains present.
-21	Bokhara Seed Co..... Falmouth.	Same	Rice bran, rice hulls and ground wheat screenings present.
-21	Perry Feed & Commission Co., Hazard.	Same	Rice hulls and rice bran present.
-21	R. M. Harrison & Son... Maysville.	Meat scraps, oil meal, corn gluten feed, corn meal, wheat bran, wheat middlings, hominy feed, alfalfa meal, dried buttermilk..	No alfalfa meal present.
-22	Borders & Fannin..... Catlettsburg.	Algaroba meal, meat scraps, fish meal, dried buttermilk, corn flour, wheat bran, wheat middlings (with screenings) corn meal, fine alfalfa meal, hominy feed, bone meal, salt.....	Corn gluten feed, oat hulls, ground weed seeds present in addition to guaranteed ingredients.

TABLE VIII.—POULTRY FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
4137-22	Kookoo Egg Mash	Chas. A. Krause Milling Co.... Milwaukee, Wis.	21.06 20.00	5.78 5.25
1607-23	Supreme-Poultry Fattening Food.	Louisville Cereal Mill Co..... Louisville, Ky.	24.88 19.96	4.97 5.08
1607-22	Same	Same	25.38 19.96	5.35 5.08
3784-21	Wayne Egg Mash With Dried Buttermilk	The McMillen Co..... Ft. Wayne, Ind.	20.00 18.00	4.12 3.75
4092-22	Laying Mash	Morganfield Roller Mills..... Morganfield, Ky.	17.38 28.50	5.86 4.95
2633-20	Nutritia Egg Mash.....	The Nutritia Co..... Cincinnati, Ohio.	22.06 20.00	5.04 4.00
4421-22	Omilco Laying Mash.....	Owensboro Milling Co..... Owensboro, Ky.	23.63 20.00	5.15 4.00
1576-21	"Lay or Bust" Dry Mash.....	Park & Pollard Co..... Chicago, Ill.	22.50 18.00	4.68 1.50
1149-22	"Growing Feed"	Same	15.38 10.00	3.93 1.50
439-22	Pratt's Supreme Laying Mash...	Pratt Food Co..... Philadelphia, Pa.	20.38 19.00	5.41 4.00
4441-22	Victory Laying Mash With But- termilk	Same	22.00 17.00	5.46 4.00

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
22	Borders & Fannin..... Catlettsburg.	Algaroba meal, meat scraps, fish meal, dried buttermilk, corn flour, wheat bran, wheat middlings (with screenings) corn meal, fine alfalfa meal, hominy feed, bone meal, salt.....	No bone meal or algaroba meal found. Some corn gluten feed present.
23	S. H. Grinstead & Co.... Lebanon.	Corn meal, hominy meal, shorts, peanut meal, meat scraps, alfalfa meal, charcoal.	
22	Same	Same	
21	Ashland Milling Co..... Ashland.	Dried buttermilk, meat scraps, wheat bran, wheat middlings, corn gluten feed, corn feed meal, cotton seed meal, linseed oil meal, ground barley, alfalfa meal, molasses.	
22	W. B. Davis..... Princeton.	Meat scraps, bone meal, tankage, wheat middlings, rye middlings alfalfa meal, corn grits, wheat, wheat bran.	Inferior to guaranty. Below guaranty in protein. Wheat screenings found. Only a trace of alfalfa meal present.
22	Glass Milling Co..... Wilmore.	Wheat middlings, hominy meal, bran, linseed oil meal, alfalfa meal, beef scraps, salt.....	No linseed oil meal present. Ground wheat screenings present.
22	Mfrs. Warehouse	Buttermilk, meat meal, corn feed meal, alfalfa meal, wheat bran, wheat shorts, red dog flour, linseed oil meal.	Considerable oat hulls present.
21	Yates & Fowler..... Madisonville.	Ground wheat, ground barley, ground kaffir corn, corn feed meal, ground milo maize, ground oats, alfalfa meal, ground grain screenings 20%, buckwheat grits, wheat bran, wheat middlings, meat, bone, calcium phosphate $\frac{1}{2}\%$, calcium carbonate $\frac{1}{2}\%$, dried fish salt.	
22	Geo. Keller	Ground wheat, ground barley, ground kaffir corn, corn feed meal, ground milo maize, ground oats, ground grain screenings 20%, buckwheat grits, wheat bran, wheat middlings, meat, bone, calcium phosphate $\frac{1}{2}\%$, calcium carbonate $\frac{1}{2}\%$, salt.	No wheat bran found. Only a trace of ground wheat, barley and kaffir corn.
22	Louisville Hay & Grain Co., Louisville.	Dried buttermilk, ground clipped oats, corn meal, O. P. linseed oil meal, wheat middlings, meat scraps, corn feed meal, wheat bran, alfalfa, fish meal.	
22	Same	Corn feed meal, wheat middlings, ground oats, wheat bran, dried buttermilk, fish meal, meat scraps, O. P. linseed meal, alfalfa meal.....	

TABLE VIII.—POULTRY FEEDS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis		
			Prot.	Fat.	Lin.
834-20	Ful-O-Pep Dry Mash.....	The Quaker Oats Co..... Chicago, Ill.	22.38 20.00	5.80 4.00	19.00 19.00
834-20	Same	Same	22.00 20.00	5.30 4.00	7.00 19.00
1337-22	Ful-O-Pep Growing Mash.....	Same	20.88 17.00	5.59 5.25	4.00 9.00
294-19	Purina Chicken Chowder Feed....	Ralston Purina Co..... St. Louis, Mo.	19.88 19.00	4.84 4.00	10.00 10.00
294-19	Same	Same	19.81 19.00	4.55 4.00	9.00 10.00
294-22	Purina Chicken Chowder (With Charcoal	Same	20.25 19.00	4.87 4.00	9.00 10.00
1549-19	Shur Pleez Buttermilk Baby Chick Starting Food	Ritter-Hennings Co..... Louisville, Ky.	14.06 14.02	5.42 4.38	4.00 3.00
1169-21	Shur-Pleez Egg and Growing Mash	Same	19.25 19.10	4.53 4.12	9.00 9.00
1169-21	Same	Same	16.38 19.10	4.75 4.12	10.00 9.00
4264-22	Vitality Growing Mash (With Dried Buttermilk	Rosenbaum Bros. Chicago, Ill.	17.50 18.00	5.19 4.50	5.00 5.00
3499-22	Vitality Egg Mash (With Dried Buttermilk	Same	19.50 20.00	5.27 5.00	6.00 8.00
3499-21	Same	Same	20.94 20.00	5.73 5.00	6.00 8.00
1959-22	Decko Poultry Fattening Feed...	Simmons Milling Co..... Cincinnati, Ohio.	15.06 17.00	9.71 6.00	6.00 7.00

ANALYSES OF INSPECTORS' SAMPLES

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS---VARIANCE FROM GUARANTY
-20	A. Schneider Sons..... Louisville.	Meat scraps, fish meal, oatmeal, alfalfa meal, wheat bran, hominy feed, yellow hominy feed, corn gluten feed, ground grain screenings 10%, bone meal, cotton seed meal.	
-20	Consolidated Coal Co.... Jenkins.	Same	
-22	M. T. Henderson..... Owensboro.	Meat scraps, oatmeal, fish meal, corn gluten feed, hominy feed, yellow hominy feed, wheat bran, alfalfa meal, bone meal, ground puffed wheat, ground corn puffs.	
-19	Martin & Hodgkin Sup- ply Co., Winchester.	Wheat middlings, wheat bran, gluten feed from corn, corn meal, alfalfa flour, linseed flour, granulated meat, salt 1%, charcoal 1%.	Only a trace of corn gluten feed.
-19	Carter Supply Co..... Lexington.	Same	
-22	W. W. Broaddus & Co.. Richmond.	Same	
-19	Mfrs. Warehouse	Dried buttermilk, corn meal, middlings, pulverized bone meal, gentian, sulphate of iron, sulphur, salt.	Above guaranty in fiber. Some ground wheat screenings present.
-21	Same	Coarse bran, feed meal, middlings beef scraps, ground bone meal, alfalfa meal, corn gluten meal.	No coarse wheat bran found.
-21	American Coal & Feed Co. Louisville.	Same	Much below guaranty in protein and above in fiber.
-22	Edw. M. Riedling..... Louisville.	Pure dried buttermilk, fine ground meat scraps, bone meal, old process linseed oil meal, corn feed meal, wheat bran, wheat flour middlings, pure ground oats, pure ground barley, corn gluten feed, calcium carbonate 3%.	
-22	J. H. Fedders & Sons.... Covington.	Dried buttermilk, meat scraps, bone meal, old process linseed oil meal, corn feed meal, wheat bran, standard wheat middlings ground oats, fine ground alfalfa meal, corn gluten feed, calcium carbonate 2%, ground barley	
-21	Same	Same	
-22	N. Y. Landrum & Co.... Tompkinsville.	Oat meal, peanut meal, gluten feed, hominy feed, copra meal, wheat middlings, corn meal, sterilized meat product, charcoal.	Not as guaranteed. Pe- low guaranty in pro- tein. Considerable rice bran present. No lin- seed oil meal, peanut oil meal, copra meal, or charcoal present.

TABLE VIII.—POULTRY FEEDS.

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis		
			Prot.	Fat	Protein
1959-22	Decko Poultry Fattening Feed...	Simmons Milling Co..... Cincinnati, Ohio.	16.50 17.00	5.73 6.00	5 7
1501-13	Atlas Chicken Mash.....	Southern Seed Co..... Louisville, Ky.	17.81 15.00	4.33 3.50	1 2
3381-22	Sugarine Chick Starter.....	The Sugarine Co..... Owensboro, Ky.	19.75 20.00	5.09 5.00	4 5
2022-21	Sugarine Poultry Mash.....	Same	18.25 17.00	4.24 5.50	5 8
2022-21	Same	Same	15.94 17.00	4.55 5.50	7 8
2022-21	Same	Same	16.50 17.00	4.64 5.50	6 8
3697-21	Sugarine Crate Fattener.....	Same	14.31 12.00	4.78 5.00	6 7
1988-22	Ubiko Buttermilk Growing Mash.	The Ubiko Milling Co..... Cincinnati, Ohio.	16.13 15.00	4.32 3.00	4 6
1987-22	Ubiko Buttermilk Egg Mash.....	Same	22.13 20.00	3.70 4.00	5 6
4347-22	Wilkes Station Ration Poultry Fattener	J. H. Wilkes & Co..... Nashville, Tenn.	16.38 15.50	5.14 4.25	4 5

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
22	Star Produce Co..... Maysville.	Oat meal, peanut meal, gluten feed, hominy feed, copra meal, wheat middlings, corn meal, sterilized meat product, char- coal	Below guaranty in pro- tein. No corn gluten feed found.
13	R. S. Van Arsdale & Bro. Harrodsburg.	Wheat bran, corn meal, beef scraps, alfalfa meal, linseed oil meal, charcoal, salt,	
22	Lexington Seed Co..... Lexington.	Dried buttermilk, blood flour, bone meal, linseed meal, pea- nut meal, wheat middlings, wheat bran, corn meal, calcium carbonate 1%, salt.....	
21	Thompson Grocery Co... Pineville.	Wheat bran, linseed meal, wheat middlings, dried buttermilk, Calcium carbonate $\frac{1}{2}\%$, salt $\frac{1}{2}\%$, corn feed meal, alfalfa meal, meat scraps.....	
21	Lake Bros. Springfield.	Same	Below guaranty in both protein and fat.
21	Sandusky Bros..... Harrodsburg.	Same	Below guaranty in pro- tein.
21	Renaker Bros..... Richmond.	Corn feed meal, hominy feed, ground wild buckwheat and wheat, wheat middlings.	A large amount of oat product and linseed oil meal present but not guaranteed. No ground wild buck- wheat found.
22	J. H. Fedders & Sons... Covington.	Meat meal, bone meal, corn meal, wheat bran, wheat middlings, whole ground oats, ground barley, old process linseed meal, dried buttermilk.	No unground wheat bran found. Some ground wheat screenings pres- ent.
22	Same	Meat meal, bone meal, corn meal, wheat bran, wheat middlings, whole ground oats, gluten feed, old process linseed meal, dried buttermilk.	
22	Scotsville Produce Co... Scotsville.	Wheat bran, oat meal, corn germ oil meal, corn meal, barley meal, wheat flour, linseed meal, meat scraps, gluten feed.....	

TABLE IX.—MISCELLANEOUS MIXED FEEDS COMPOSED OF STRAIGHT BY-PRODUCTS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis		
			Prot.	Fat	Fiber
	Misc. Mixed Feed.				
318-19	Acme Dairy Feed.....	Acme-Evans Co. Indianapolis, Ind	25.63 25.00	5.84 5.00	9.5 9.5
3845-21	Butter Nut Dairy Feed.....	Acme Mills Hopkinsville, Ky.	23.13 24.00	4.99 5.50	9.5 9.5
3845-21	Same	Same	23.63 24.00	2.77 5.50	7.1 9.5
2711-21	Heavy Work Horse and Mule Sweet Feed	Same	9.02 9.50	3.42 3.25	6.0 2.8
80-21	Supreme Hog Feed	Same	15.25 17.00	4.65 5.50	4.5 6.5
80-21	Same	Same	17.63 17.00	4.50 5.50	4.5 5.0
80-21	Same	Same	16.44 17.00	4.20 5.50	4.5 6.5
466-21	Alfocorn Dairy Feed.....	Alfocorn Milling Co. St. Louis, Mo.	26.25 25.00	5.75 7.00	8.5 10.5
466-21	Same	Same	27.19 25.00	4.99 5.00	8.5 10.5
3293-21	Butter Ball Dairy Feed.....	Same	21.75 20.00	6.68 5.00	9.5 12.2
4502-22	Diamond "D" Dairy Feed.....	Same	15.75 16.00	3.07 3.75	8.5 12.2
4515-22	Diamond Sweet Dairy Feed.....	Same	20.50 20.00	4.73 4.50	11.5 12.2
4515-22	Same	Same	20.50 20.00	5.42 4.50	11.5 12.2
479-20	Full Pail Dairy Feed.....	Same	19.63 16.00	6.47 4.50	8.5 12.2
2456-20	Alfogreen Horse & Mule Feed...	Same	10.44 9.00	2.67 1.50	7.5 15.5
4478-22	Diamond "D" Horse & Mule Feed	Same	8.67 9.00	3.14 2.00	6.5 13.5
4499-22	Diamond Special Horse & Mule Feed	Same	10.27 9.00	2.90 2.00	6.5 13.5

ANALYSES OF INSPECTORS' SAMPLES.

SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
9 Sharp & McCreary Corbin.	Linseed oil meal, corn gluten feed, wheat bran, cotton seed meal, dried brewer's grains, salt.	
1 J. W. Davis Elkton.	Old process oil meal, alfalfa meal, corn gluten feed, shipstuff, corn meal, cotton seed meal, cane molasses, salt 1%	Below guaranty in pro- tein and fat.
1 S. B. Jones..... Pembroke.	Same	Below guaranty in fat.
1 Forbes Manufacturing Co. Hopkinsville.	Corn, oats, alfalfa meal, molasses, salt ½%	
1 S. B. Jones Pembroke.	Digester tankage, corn meal, wheat shorts	Below guaranty in pro- tein and fat.
1 J. W. Davis Elkton.	Same	Below guaranty in fat.
1 T. M. Wooldridge..... Hopkinsville.	Same	Below guaranty in pro- tein and fat. Ground kaffir, milo and barley present.
1 Ruef Bros. Co. Covington.	Cotton seed meal, corn gluten feed, brewer's dried grains, rice bran, wheat bran, salt ½% ..	Below guaranty in fat
21 W. T. Sistrunk & Co. ... Lexington.	Cotton seed meal, corn gluten feed, brewer's dried grains, wheat bran, wheat middlings, O. P. linseed oil meal, salt ½% ..	Below guaranty in fat No linseed oil meal found.
21 The Mahan Co..... Hazard.	Cotton seed meal, corn gluten feed, brewer's dried grains, rice bran, wheat bran, alfalfa meal, molasses, salt ½%	No corn gluten feed present. Ground weed seed present.
22 W. T. Sistrunk & Co.... Lexington.	Cotton seed meal, corn feed meal, alfalfa meal, rice bran, wheat bran, molasses, salt ½%	Below guaranty in fat. No rice bran found. Ground barley present.
22 Same	Cotton seed meal, corn gluten feed, brewers' dried grains....	No corn gluten feed found. Wheat bran alfalfa meal and weed seeds present.
22 Same	Same	No corn gluten feed found. Wheat bran and alfalfa meal pres- ent.
20 Same	Cotton seed meal, brewer's dried grains, alfalfa meal, corn glu- ten feed, rice bran, wheat bran, molasses, salt ½%	No brewer's dried grains found.
20 G. W. Stamper & Co. ... Vanceburg.	Alfalfa meal, crushed whole oats, crushed whole corn, molasses, salt 1%	
22 W. T. Sistrunk & Co. ... Lexington.	Cracked corn, rolled oats, alfalfa meal, molasses, salt ½%.....	
2 S. M. Moloney..... Torrent.	Same	Guarantee in fiber is too high.

TABLE IX.—MISCELLANEOUS MIXED FEEDS COMPOSED OF STRAIGHT BY-PRODUCTS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
377-22	Kick-A-Poo Horse Feed	American Milling Co.	9.50	3.37
		Peoria, Ill.	10.00	2.50
.....	Cooked Cow Feed.....	American Steam Feed Co.	21.63	7.10
		Nashville, Tenn.	26.00	7.50
1815-21	Ashland Special Feed.....	Ashland Milling Co.	12.19	5.45
		Ashland, Ky.	14.37	3.89
1506-21	Aubrey's Dairy Feed	Aubrey & Co.	15.51	1.94
		Louisville, Ky.	16.50	3.50
3612-21	Dandy Dairy Feed.....	Same	21.75	5.66
			20.00	4.00
4440-23	85% Grain Horse Feed	Same	9.50	3.16
			9.00	2.00
3378-21	95% Grain Horse Feed.....	Same	9.36	3.70
			8.00	2.00
3378-21	Same	Same	9.15	3.54
			8.00	2.00
3378-21	Same	Same	9.35	3.65
			8.00	2.00
3378-22	Same	Same	10.00	3.89
			8.00	2.00
2799-20	Dairy Feed (24% Protein)	Ballard & Ballard Co.	24.19	5.53
		Louisville, Ky.	24.00	5.00
3864-21	Milk Insurance Feed	Same	22.94	4.96
			24.00	4.50
3362-21	Royal Dairy Feed	Bardstown Milling Co.	17.50	5.07
		Bardstown, Ky.	18.00	5.00
3501-22	Royal Pig Meal	Same	17.50	5.13
			16.75	4.82
573-21	Peerless Cow Feed	Blue Grass Commission Co.	19.38	4.67
		Lexington, Ky.	19.50	5.45
573-21	Same	Same	20.38	4.86
			19.50	5.45
573-22	Same	Same	20.00	4.74
			19.50	5.45

ANALYSES OF INSPECTORS' SAMPLES.

	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
22	C. L. Osborne Prestonsburg.	Corn, oats, barley, alfalfa, molasses, salt 1%.....	Below guaranty in protein.
	C. C. Tatum Russellville.	Cotton seed meal, hominy feed, barley sprouts, peanut meal, brewer's dried grains, salt	Below guaranty in protein and above in fiber. Corn feed meal and not hominy feed present.
21	J. Harris Prestonsburg.	Rye middlings, wheat middlings, ground corn bran, corn flour, red dog flour	Below guaranty in protein.
21	J. H. White Rineyville.	Cotton seed meal, distiller's dried grains, linseed meal, alfalfa meal, ground and bolted wheat screenings 10%, cane molasses, salt 1%	Below guaranty in protein and fat and above in fiber. Ingredients not as guaranteed. Inferior feed.
21	Hazard Poultry & Supply Co., Hazard.	Alfalfa meal, wheat bran, wheat middlings, brewer's grains, cotton seed meal, feed meal, molasses, salt $\frac{1}{2}$ %	No corn feed meal found.
23	Lewis & Co. Viper.	Cracked corn, oats, alfalfa meal, molasses	Small amount of alfalfa meal present.
21	Pineville Produce Co. ... Pineville.	Cracked corn, crushed oats, molasses	
21	H. W. Hogg, Jr. Poorfork.	Same	
21	S. T. Frazier Whitesburg.	Same	
22	Same	Same	
20	Louisa Flour & Feed Co.. Louisa.	Wheat bran, wheat middlings, cotton seed meal, maltose process gluten feed from corn and barley, germ oil meal, dried brewer's grains, old process linseed meal, ground grain screenings 5%, salt 1%.	
21	Smith Chadwell & Co. .. Middlesboro.	Wheat bran, wheat middlings cotton seed meal, corn gluten feed, corn feed meal, old process linseed meal, dried brewer's grain, salt 1%.....	Below guaranty in both protein and fat.
21	Mfrs. Warehouse	Corn meal, ground oats, wheat bran, cotton seed meal, linseed meal, salt	Below guaranty in protein and above in fiber.
22	Same	Corn meal, ground oats, wheat bran, wheat middlings, wheat shorts, meat meal, salt 1%....	Above guaranty in fiber.
21	Lewell Ford & Co. Jackson.	Cotton seed meal, shipstuff, corn, oats, barley	Below guaranty in fat.
21	Miss Ella E. Berry Lexington.	Same	Kaffir and mlo present.
22	J. R. Blake Jackson.	Same	Below guaranty in fat.

TABLE IX.—MISCELLANEOUS MIXED FEEDS COMPOSED OF STRAIGHT BY-PRODUCTS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
4018-22	Bradley's Big 4 Dairy Feed.....	Bradley Bros. Paducah, Ky.	9.88 11.00	3.30 3.82
2675-22	Peerless Hog Feed.....	Cate Milling Co. Hopkinsville, Ky.	15.38 23.00	8.79 5.50
4617-22	Diamond F Dairy Feed.....	Chapman-Doake Co. Decatur, Ill.	15.75 16.00	5.20 3.50
2427-17	Vigor Horse & Mule Feed.....	Same	9.75 8.00	3.61 2.00
4616-22	Diamond F Hog Feed.....	Same	16.31 18.00	6.57 4.00
111-21	"No Better" Horse and Mule Feed	The Cincinnati Grain & Hay Co. Covington, Ky.	18.50 19.00	4.27 5.50
112-21	Same	Same	16.25 19.00	4.73 5.50
112-22	Same	Same	19.75 19.00	4.74 5.50
112-23	Same	Same	18.88 19.00	6.54 5.50
2951-22	"No Better" Dry Dairy Ration..	Same	19.25 21.24	5.24 6.60
111-21	"No Better" Horse and Mule Feed	Same	10.54 10.50	4.04 4.00
111-21	Same	Same	10.25 10.50	3.54 4.00
111-21	Same	Same	10.63 10.50	3.05 4.00
111-23	Same	Same	10.38 10.50	3.51 4.00
111-23	Same	Same	10.25 10.50	3.44 4.00
2315-20	"No Better" Hog Ration.....	The Cincinnati Hay & Grain Co. Cincinnati, Ohio	19.63 19.10	5.38 10.91
3565-21	King Dairy Feed	The Colton Bros. Co..... Bellefontaine, Ohio.	11.00 12.00	4.94 4.50

ANALYSES OF INSPECTORS' SAMPLES.

SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
2 Mfrs. Warehouse	Corn meal, ground oats, alfalfa meal, beet molasses.....	Below guaranty in protein and fat and above in fiber. No oats used but adulterated with oat hulls.
2 Same	Reground corn hearts, shipstuff, digester tankage, rice bran....	Below guaranty in protein and a much inferior product to guaranty.
2 The Dorsel Co. Newport.	Feed meal, wheat bran, wheat shorts, cotton seed meal, alfalfa meal, molasses, corn gluten feed, salt $\frac{1}{2}\%$	No corn gluten feed found.
7 Same	Cracked corn, oats, alfalfa meal, molasses, salt $\frac{1}{2}\%$	
2 Same	Corn gluten feed, feed meal, wheat shorts, tankage, oil meal, salt $\frac{1}{2}\%$	Below guaranty in protein. No corn gluten feed found.
21 Mrs. H. Steenken..... Covington.	Brewer's dried grains, cotton seed meal, gluten feed, hominy meal, wheat bran, molasses, salt $\frac{1}{2}\%$	Below guaranty in protein and fat.
21 H. B. Ringo	Same	Same.
22 Hazard Blue Grass Coal Corporation, Hazard.	Same	Below guaranty in fat.
23 Boone County Farm Bureau, Florence.	Same	
22 Alva West & Co. Maysville.	Gluten feed, brewer's dried grains, cotton seed meal, linseed meal, hominy meal, wheat bran, wheat middlings, salt $\frac{1}{2}\%$...	Below guaranty in protein and fat. Inferior to guarantee. Rye middlings present. No oil meal found.
21 J. H. Hanley & Bro. Lexington.	Cracked corn, crushed oats, ground alfalfa meal, molasses, salt $\frac{1}{2}\%$	
21 Cynthia Coal Co. Cynthiana.	Same	Wild oats and wheat bran present.
21 H. B. Ringo	Same	
23 J. H. Johnson	Same	Wheat bran present, also kaffir and milo screenings.
23 R. F. Collier & Co..... Paris.	Same	Below guaranty in fat.
20 Alva West & Co. Maysville.	Tankage, linseed oil meal, palmo middlings, whole ground barley feed, gluten feed, wheat middlings, fine ground alfalfa, corn meal.	Below guaranty in fat. Fat guarantee evidently too high.
21 Flannery Bros. & Branch Olive Hill.	Reground corn grits, oats, wheat bran, corn bran, ground wheat screenings 5%	Below guaranty in protein.

TABLE IX.—MISCELLANEOUS MIXED FEEDS COMPOSED OF STRAIGHT BY-PRODUCTS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
3565-21	King Dairy Feed.....	The Colton Bros. Co. Bellefontaine, Ohio.	11.00 12.00	5.42 4.50
3565-21	Same	Same	11.75 12.00	6.18 4.50
2533-21	King Mixed Feed.....	Same	13.88 15.75	3.49 4.05
2533-21	Same	Same	13.56 15.75	3.62 4.05
2533-22	Same	Same	15.75 15.00	4.86 4.05
230-22	Corno Dairy Feed	The Corno Mills Co. St. Louis, Mo.	23.50 24.00	5.49 4.50
230-22	Same	Same	25.88 24.00	5.88 4.50
235-21	Noco Dairy Feed	Same	23.00 24.00	4.95 4.50
3048-22	Corno Premium Feed.....	Same	11.25 9.50	3.22 3.25
3048-22	Same	Same	10.00 9.50	4.15 3.25
3374-21	Noco Premium Feed.....	Corno Mills Co. (National Oats Co.), St. Louis, Mo.....	10.38 9.50	3.29 3.25
3374-21	Same	Same	9.44 9.50	4.08 3.25
4290-22	Pawnee Premium Feed	Same	10.02 9.50	3.94 3.25
216-22	Pawnee Sweet Feed.....	Same	9.78 10.00	4.23 2.50
2952-22	Shamrock Premium Feed.....	The Corno Mills Co. (Shamrock Mills), East St. Louis, Ill. ...	9.69 9.50	3.76 3.25
3226-21	Dairy Feed	D. A. Davis & Son..... Jeffersontown, Ky.	22.50 23.38	8.48 6.68
9-21	Diamond Cow Feed	Diamond Mills	24.44 24.00	5.73 5.00
3399-21	Ideal Dairy Ration.....	Same	17.13 16.50	4.22 3.50

ANALYSES OF INSPECTORS' SAMPLES.

SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
1 Thompson Grocery Co. . . Pineville.	Reground corn grits, oats, wheat bran, corn bran, ground wheat screenings 5%	Below guaranty in protein.
1 J. H. Fedders & Sons . . . Covington.	Same	Same.
1 Flannery Bros. & Branch Olive Hill.	Wheat bran, ground white oats, recleaned wheat screenings 13%	Below guaranty in protein and fat.
1 Ashland Supply Co. Ashland.	Same	Same.
2 Thompson Grocery Co. . . Pineville.	Same	No ground oats present.
2 J. H. West Dawson Springs.	Gluten feed, hominy feed, cotton seed meal, linseed meal, wheat bran, wheat middlings, salt 1%	Below guaranty in protein.
2 Alva West & Co. Maysville.	Same	
1 Knox Grocery Co. Barbourville.	Gluten feed, cotton seed meal, wheat bran, linseed meal, wheat middlings, salt 1%	Below guaranty in protein.
2 The H. T. Hackney Co. . . Middlesboro.	Whole oats, alfalfa meal, rolled corn, molasses	
2 Ritter-Hennings Co. Louisville.	Same	
21 Joe Lovett Williamsburg.	Whole oats crushed, alfalfa meal, wheat bran, molasses, cracked corn.	
21 Same	Corn, whole oats, alfalfa meal, wheat bran, molasses	
22 F. D. Turner Jackson.	Corn, whole oats, alfalfa meal, molasses	
22 Sharp & McCreary Corbin.	Corn, whole oats, alfalfa meal, molasses	
22 Ritter-Hennings Co. . . . Louisville.	Same	
21 Mfrs. Warehouse	Cotton seed meal, ground corn, wheat bran, wheat middlings, rice bran, oil meal	Below guaranty in protein. Contains corn bran in addition to guaranteed ingredients.
21 W. L. Kimbrough & Son. Guthrie.	Cotton seed meal, wheat middlings, wheat bran, alfalfa meal, molasses, linseed oil meal, corn feed meal, hominy feed, salt ½ %	Ground wheat screenings present.
21 Q. F. Combs. Pembroke.	Processed wheat, wheat bran, corn feed meal, cotton seed meal, linseed oil meal, alfalfa meal, miscellaneous seeds screenings 25%, molasses, salt ½ %	No processed wheat found.

TABLE IX.—MISCELLANEOUS MIXED FEEDS COMPOSED OF STRAIGHT BY-PRODUCTS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
8-21	Diamond Hog and Pig Meal.....	Diamond Mills Evansville, Ind.	18.00 20.00	5.01 5.00
4685-23	Rival Dairy Feed	Albert Dickinson Co. Chicago, Ill.	16.00 16.00	5.25 4.00
36-20	Dixie Cow Feed	Dixie Mills Co. East St. Louis, Ill.	24.06 24.00	4.89 4.50
38-19	Polo Hog Feed.....	Same	17.00 18.00	7.05 4.00
3899-21	Burt's Cereal Feed.....	The Early & Daniel Co. Covington, Ky.	19.00 18.00	3.06 2.50
263-21	Cerealia Sweets for the Dairy....	Same	22.00 20.00	5.36 4.50
568-22	Same	The Early & Daniel Co. Cincinnati, Ohio.	24.50 20.00	5.76 4.50
568-22	Same	Same	20.63 20.00	5.30 4.50
3756-21	"Dairy Tuxedo"	Same	21.38 24.00	4.21 5.00
3846-21	Same	The Early & Daniel Co. Covington, Ky.	23.00 24.00	4.76 5.00
3687-21	Eadan Dairy Feed.....	Same	17.63 14.00	5.07 4.00
3687-21	Same	Same	18.50 14.00	5.07 4.00
3687-22	Same	Same	16.56 14.00	3.98 4.00
3687-22	Same	Same	17.00 14.00	4.68 4.00
3687-22	Same	Same	15.00 16.00	4.68 4.00
1816-22	Cerealia Rex Chop.....	Same	9.38 10.00	4.72 5.00

ANALYSES OF INSPECTORS' SAMPLES.

	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
21	Henry Paris Marion.	Ground oats, ground kaffir corn, digester tankage, wheat middlings, linseed oil meal, cotton seed meal, corn	Below guaranty in protein. No ground kaffir found. Wheat screenings present.
23	Edw. M. Riedling Louisville.	Gluten feed, ground barley, linseed oil meal, cotton seed meal, wheat bran, corn feed meal, wheat middlings ground screenings from wheat, oats, barley and kaffir 30%, salt 1%	Ground weed seeds present.
20	Ruef Bros. & Co. Covington.	Brewer's dried grains, corn gluten feed, cotton seed meal, ground alfalfa, hominy feed, old process linseed oil meal, molasses, salt 1%	
19	W. B. Ray Feed Co. Princeton.	Corn gluten feed, copra meal, wheat middlings, rice bran, corn feed meal, ground flax screenings 10%	Below guaranty in protein.
21	Mfrs. Warehouse	Wheat and barley by-product obtained in the manufacture of cereal beverage, molasses	Above guaranty in fiber.
21	Fred Schuerman Newport.	Brewer's grains, cotton seed meal, corn meal, old process oil meal, wheat bran, wheat middlings, corn gluten feed, molasses ..	
21	S. T. Frazier Whitesburg.	Same	
22	F. P. Spoonamore Stanford.	Same	
21	Henry Decker Covington.	Corn gluten meal, corn gluten feed, old process oil meal, wheat bran, wheat middlings, cotton seed meal, brewer's grains, corn meal, hominy feed, cane molasses	Much below guaranty in protein, and inferior to claim.
21	Joe Kahmann Covington.	Same	Below guaranty in protein. Ground barley present.
21	J. R. List Latonia.	Wheat bran, brewer's grains, cane molasses, cotton seed meal, corn meal, hominy feed.	No hominy feed found. Linseed meal present.
21	Mrs. H. Steenken Covington.	Same	
22	J. W. Rink Walton.	Same	
22	W. H. Schoborg Independence.	Same	
22	Ben Jansen Newport.	Same	Below guaranty in protein and inferior to claim.
22	Superior Oil Corporation Bell Point.	Corn, oats	Below guaranty in protein.

TABLE IX.--MISCELLANEOUS MIXED FEEDS COMPOSED OF STRAIGHT BY-PRODUCTS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
262-21	Tuxedo Chop	The Early & Daniel Co. Covington, Ky.	11.63 10.00	3.91 3.00
389-23	Same	The Early & Daniel Co. Cincinnati, Ohio.	10.38 10.00	3.87 3.00
2309-20	Tuxedo Hog Ration	Same	16.00 14.50	4.58 3.50
2309-22	Same	Same	16.00 14.50	4.15 3.50
1176-21	"Elmendorf Barley Corn" Cow Feed	Same	17.69 16.37	4.59 4.18
1176-22	Same	Same	17.88 16.37	4.04 4.18
1172-22	Elmendorf Tango Horse Chop....	Same	9.33 11.63	3.05 3.51
3251-23	Leader Dairy Feed	Eminence Milling Co. Eminence, Ky.	16.13 17.50	5.11 4.00
3698-22	Kentucky Pride Horse and Mule Molasses Chop	The Eversole Co. London, Ky.	9.13 9.00	3.70 3.00
2658-22	Butternut Dairy Feed.....	Ferncliff Feed & Grain Co. Louisville, Ky.	15.38 16.00	3.34 2.00
2658-22	Same	Same	16.13 16.00	3.45 2.00
2080-21	Cracker Jack Dairy Ration.....	Same	20.94 21.00	4.25 3.50
2080-22	Same	Same	20.25 21.00	5.42 3.50
2079-22	Cracker Jack Dairy Feed.....	Same	18.50 18.00	4.23 3.00
2079-22	Same	Same	16.38 18.00	3.56 3.00
2084-22	P. D. Q. Dairy Feed.....	Same	17.44 15.00	4.16 3.00
2084-23	Same	Same	14.63 15.00	3.79 3.00
2865-21	"Logan" Dairy Feed.....	Same	16.88 12.00	3.65 1.50

ANALYSES OF INSPECTORS' SAMPLES

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
21	Dave Caldwell Williamstown.	Corn, oats, alfalfa meal, wheat bran, brewer's grains, molasses.	
23	Hill Congleton & Sons.. Beattyville.	Same	
20	The Dorsel Co. Newport.	Digester tankage, ground barley, ground oats, corn meal, wheat middlings, old process linseed oil meal, gluten feed, alfalfa meal, cane molasses	
22	Hudson & Farnau..... Lancaster.	Same	No ground barley found.
21	Mfrs. Warehouse	Rolled oats, cracked corn, wheat bran, alfalfa meal, cotton seed meal	
22	Same	Same	Above guaranty in fiber. Barley and weed seeds present.
22	Carey-Reed Co. Lexington.	Rolled oats, cracked corn, alfalfa meal, cane molasses, wheat bran	Ground hay and chaff present in addition to declared ingredients.
23	Mfrs. Warehouse	Cotton seed meal, ground barley, corn meal, ground oats, mill feed, salt	Below guaranty in pro- tein. Unground wheat screenings present.
22	Mfrs. Warehouse	Corn, oats, alfalfa meal, molasses, salt $\frac{1}{2}\%$	
22	Garrard Milling Co. Lancaster.	Cotton seed meal, alfalfa meal, wheat bran, corn bran, cane molasses, salt 1%	Below guaranty in pro- tein. No alfalfa meal found.
22	Herndon Carter Co. Buechel.	Cotton seed meal, alfalfa meal, wheat bran, corn bran, cane molasses, salt 1%	
21	R. B. Hayes Hodgenville.	Corn gluten feed, old process lin- seed oil meal, cotton seed meal, alfalfa meal, wheat bran, salt 1%	
22	J. E. M. Milling Co. Frankfort.	Cotton seed meal, alfalfa meal, wheat bran, wheat middlings, corn meal, salt 1%	Ground oats present.
22	E. T. Oldham Stamping Ground.	Cotton seed meal, alfalfa meal, cane molasses, wheat bran, wheat middlings, corn meal, salt 1%	Kaffir corn and whole oats present.
22	Blackey Flour & Feed Co. Blackey.	Same	Below guaranty in pro- tein. Oat hulls, buck- wheat hulls and bar- ley hulls present.
22	J. H. Cain Brandenburg.	Cotton seed meal, wheat bran, corn feed meal, alfalfa meal, cane molasses, ground grain screenings 35%, salt 1%	
23	C. E. Johnson Thornton.	Same	
21	Cameron's Mill Carrollton.	Wheat bran, cotton seed meal, alfalfa meal, cane molasses, salt 1%	

TABLE IX.—MISCELLANEOUS MIXED FEEDS COMPOSED OF STRAIGHT BY-PRODUCTS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
2077-23	Cracker Jack Horse and Mule Feed	Ferncliff Feed & Grain Co. Louisville, Ky.	10.75 10.00	3.68 3.00
1665-22	"Cracker Jack Special" Feed....	Same	9.82 10.00	3.72 3.00
1245-20	Blue Grass Dairy Feed.....	Henry Fruechtenicht	21.10 18.00	4.59 3.00
1244-21	Blue Grass Horse Feed.....	Same	9.21 10.00	3.07 2.50
4418-22	"Glass" Pig Feed.....	Glass Milling Co. Wilmore, Ky.	10.31 9.38	2.91 2.01
4418-22	Same	Same	8.94 9.38	3.39 2.01
4418-22	Same	Same	9.88 9.38	3.20 2.01
2521-20	Crescent Dairy Feed Ration.....	Edward F. Goeke Co. Evansville, Ind.	18.75 17.00	4.68 4.00
953-21	Butterfat Dairy Feed.....	Golden Grain Milling Co. E. St. Louis, Ill.	24.06 20.00	5.13 4.00
2028-19	Guaranteed Dairy Feed.....	Same	22.63 24.00	5.75 4.50
4711-23	Golden Grain Milk Producer....	Same	25.56 24.00	5.36 4.50
4711-23	Same	Same	24.50 24.00	5.53 4.50
919-21	Golden Grain Horse and Mule Feed	Same	8.60 9.00	3.04 3.00
3487-21	Lumber Jack Horse and Mule Feed	Same	9.20 9.00	3.10 3.00
3487-21	Same	Same	8.55 9.00	2.94 3.00
3179-22	Templar Horse and Mule Feed..	Grain Belt Mills Co. St. Joseph, Mo.	9.88 9.00	3.76 2.00
626-21	Greenleaf Alfalfa Molasses Feed..	Same	12.03 10.00	0.97 0.75
1975-19	Tiger Alfalfa Molasses Feed.....	Same	8.33 10.00	0.91 0.50

ANALYSES OF INSPECTORS' SAMPLES.

SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
Geo. W. Riedling Louisville.	Whole cracked corn, whole rolled oats, alfalfa meal, cane molasses, wheat bran, salt 1%	
Dudley Coal Co. Walbolt.	Cracked corn, oats, wheat bran, molasses, salt 1%	
Mfrs. Warehouse	Corn meal, cotton seed meal, molasses, bran, alfalfa meal.....	Brewer's dried grains and dried blood present, but not guaranteed.
Same	Corn, oats, alfalfa, molasses.....	Below guaranty in protein.
I. E. Payne	Ground corn, ground barley, ship-stuff	Ground wheat screenings present.
Mills & Tribble	Same	Same.
Flavo Grain & Mill Co. Somerset.	Same	Same.
W. R. Woods	Cotton seed meal, linseed meal, brewers' dried grains, alfalfa meal, molasses, ground flax seed screenings 20%, toasted wheat feed, wheat mixed feed.	Corn product present.
Paintsville Grocery Co. Paintsville.	Dried beet pulp, cotton seed meal, corn oil cake meal, old process linseed oil meal, copra meal, fine ground alfalfa meal, molasses, salt $\frac{1}{2}$ %	Wheat middlings, wheat bran and ground wheat screenings present, but not guaranteed.
Conrad J. Clausen	Cotton seed meal, alfalfa meal, O. P. linseed oil meal, corn oil cake meal, copra meal, molasses, salt $\frac{1}{2}$ %	Above guaranty in fiber.
Same	Cotton seed meal, alfalfa leaf meal, old process linseed oil meal, corn oil cake meal, O. P. coconut oil cake meal, corn gluten meal, alfalfa meal, cane molasses, salt $\frac{1}{2}$ %	Alfalfa meal and not alfalfa leaf meal present. Above guaranty in fiber.
Farmers' Union Supply Co., Winchester.	Same	Above guaranty in fiber.
Middlesboro Wholesale Grocery Co., Poor Fork	Cracked corn, oats, alfalfa meal, molasses, salt $\frac{1}{2}$ %	
Bell Grocery Co. Pineville.	Same	Pin oats present.
Renfro Supply Co. Williamsburg.	Same	
Edwin C. Hawkins	Corn, oats, alfalfa meal, molasses, salt $\frac{1}{2}$ %	
Same	Alfalfa meal, molasses, salt $\frac{1}{2}$ %	
Blue Grass Commission Co., Lexington.	Alfalfa meal, molasses, salt.....	Below guaranty in protein and inferior to guarantee.

TABLE IX.—MISCELLANEOUS MIXED FEEDS COMPOSED OF STRAIGHT BY-PRODU

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
1975-19	Tiger Alfalfa Molasses Feed.....	Grain Belt Mills Co..... St. Joseph, Mo.	8.16 10.00	0.80 0.50
3495-21	Make Milk Dairy Feed.....	Gwinn Bros. & Co. Huntington, W. Va.	25.00 24.00	6.33 4.00
3495-21	Same	Same	22.75 24.00	5.60 4.00
685-19	King Falfa Horse Feed.....	Hales & Edwards Co. Chicago, Ill.	9.78 10.00	3.02 2.00
2178-21	Halliday's Standard Dairy Feed..	H. L. Halliday Milling Co. Cairo, Ill.	19.63 16.50	3.42 4.00
4512-22	Pickwick Horse and Mule Feed...	Harrison Milling Co. Harrison, Ohio.	9.60 10.00	3.20 2.30
957-22	Golden Grain	Edwin C. Hawkins	9.56 10.33	3.11 3.05
147-22	Nutritia Dairy Feed	The Hawthorne Milling Co. ... Cincinnati, Ohio.	16.50 20.00	5.02 4.00
3196-22	Manowar Chop	Same	9.90 9.00	3.19 3.00
340-21	"Milky Way" Dairy Feed.....	Henson & Lynes	21.56 23.50	5.18 5.25
.....	Best Yet Dairy Feed.....	Hermitage Mills	16.25 17.00	3.07 3.25
997-19	International Milk Made Dairy Feed	Same	25.06 24.00	6.88 5.00
997-20	Same	Same	26.50 24.00	6.31 5.00
1004-19	"Makemeat" Hog Feed.....	Same	13.75 15.00	7.44 5.00
3354-22	International Makemeat Hog Feed	Same	12.88 15.00	8.28 5.00
4301-22	Cyclone Horse and Mule Feed....	Jellico Grocery Co. Jellico, Tenn.	9.45 9.00	3.61 3.00

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
19	Blue Grass Commission Co., Lexington.....	Alfalfa meal, molasses, salt.....	Below guaranty in protein. Alfalfa meal of a poor quality.
21	Williams Feed Co. Pikeville.	Wheat bran, wheat middlings, (with screenings), cotton seed meal, ground barley, corn flour, salt	Ground oats present.
21	H. H. Borders Catlettsburg.	Same	Below guaranty in protein.
19	C. S. Brent Seed Co.... Lexington.	Alfalfa, molasses, cracked corn, oats, barley	Wild oats present.
21	J. P. Page Barlow.	Cotton seed meal, corn meal, alfalfa, bran, molasses.....	Corn gluten feed present.
22	Blackey Flour & Feed Co. Blackey.	Ground corn, oats, ground alfalfa, molasses	Oat hulls and pin oats present.
22	J. R. Brandon Benton.	Corn, alfalfa meal, molasses.....	Below guaranty in protein.
22	Pineville Produce Co. .. Pineville.	Distiller's grains, hominy feed, cotton seed meal, malt sprouts, old process linseed oil meal, whole ground barley, fine ground alfalfa meal, corn meal, wheat bran, wheat middlings ..	Ground wheat screenings and ground weed seeds present. Below guaranty in protein.
22	Lexington City Scales .. Lexington.	Cracked corn, crimped oats, distiller's grains, ground light oats, molasses, salt 1%	Oats are pin oats.
21	A. B. Wilkins Elkton.	Linseed meal, peanut meal, cotton seed meal, corn hearts, wheat bran, wheat middlings, salt 1%	Below guaranty in protein. Corn feed meal present.
..	Farmers' Union Supply Co., Franklin.	Cotton Seed meal, wheat bran, ground kaffir, alfalfa meal, oat feed, molasses, salt 1%	Below guaranty in protein.
19	Calloway County Farm Bureau, Murray.	Cotton seed meal, wheat bran, rice bran, wheat shorts, corn gluten feed, linseed oil meal, wheat, red dog flour, corn feed meal, salt ½%	No linseed oil meal found.
20	Frost & Duvall Lexington.	Same	Guarantee on fiber is too high.
19	Graves County Farm Bureau, Mayfield.	Linseed oil meal, digester tankage, ground and bolted grain screenings 50%, wheat bran and shorts, rice bran, corn feed meal, red dog flour, corn gluten feed, salt	Below guaranty in protein.
22	W. N. Neville Arlington.	Digester tankage, linseed oil meal, red dog flour, corn gluten feed, wheat bran, rice bran, corn feed meal, ground and bolted screenings from wheat 20%, salt ½%	Below guaranty in protein. Inferior to claim.
22	Mfrs. Warehouse	Corn, oats, alfalfa meal, molasses, salt ½%	

TABLE IX.—MISCELLANEOUS MIXED FEEDS COMPOSED OF STRAIGHT BY-PRODUCTS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
3224-21	Jersee Milk Food Compound.....	The Jersee Co. Minneapolis, Minn.	17.13 9.00	4.95 4.50
1381-19	Just Dairy Feed.....	Just Mills Nashville, Tenn.	24.38 24.00	5.19 4.10
1265-20	Lotus Dairy Feed.....	Keister Milling Co. Huntington, W. Va.	14.31 14.00	5.24 4.00
1265-20	Same	Same	15.56 14.00	4.13 4.00
2876-21	Marshall's 24% Dairy Feed.....	Kentucky Feed & Grain Co. ... Louisville, Ky.	16.13 24.00	6.20 4.50
2876-22	Same	Same	23.88 24.00	7.95 4.50
2876-22	Same	Same	23.88 24.00	7.23 4.50
2876-22	Same	Same	19.69 24.00	6.72 4.50
2876-22	Same	Same	20.81 24.00	7.26 4.50
2876-22	Same	Same	22.50 24.00	6.64 4.50
2876-22	Same	Same	18.75 24.00	7.15 4.50
2876-22	Same	Same	24.38 24.00	6.76 4.50
2876-22	Same	Same	20.25 24.00	8.35 4.50
2876-23	Same	Same	22.38 24.00	8.52 4.50
2876-23	Same	Same	23.25 24.00	6.37 4.50

ANALYSES OF INSPECTORS' SAMPLES.

	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
1	Ewing & Gray Eminence.	Cotton seed meal, old process lin- Powdered milk, St. John's bread, salt, starch, sugar, corn flour, flour middlings, dried blood, oxide iron, anise, calcium phos- phate.	
9	Jellico Grocery Co. Middlesboro.	seed oil meal, gluten feed from corn, hominy feed, ground al- falfa, molasses, salt 1%	
0	Queen & Turner Ashland.	Wheat bran, corn bran, wheat middlings, barley meal, ground screenings 2%	Corn feed meal present. No barley meal found.
0	Burnam Roberts Louisa.	Same	
1	J. F. Griffin & Son Mt. Vernon.	Cotton seed meal, linseed meal, alfalfa meal, wheat bran, corn feed meal, kaffir corn meal, rice bran, cane molasses, salt $\frac{1}{2}$ %	Below guaranty in pro- tein. Contains barley, rice and oat hulls. No linseed oil meal found.
2	E. S. Ferrell & Sons Buffalo.	Same	
2	Sam Carpenter & Co. ... Maysville.	Same	
2	J. A. Bennett Taylorsville.	Same	Below guaranty in pro- tein. No linseed oil meal found. Inferior product to guarantee.
2	F. P. Spoonamore Stanford.	Same	Below guaranty in pro- tein. No linseed oil meal or corn feed meal found.
2	Engle & Given Coal Co., Inc., Lexington.	Same	Below guaranty in pro- tein.
2	East End Milling Co. ... Henderson.	Same	Below guaranty in pro- tein. No linseed oil meal or corn feed meal found. Wheat screen- ings and weed seeds present.
2	Jellico Grocery Co. Corbin.	Same	Peanut oil meal found.
2	Anderson & Spilman.... Danville.	Same	Much below guaranty in protein. Oat product found. No linseed oil meal found.
3	Boston Flour Mills Boston.	Same	Below guaranty in pro- tein.
3	Perry Feed & Commis- sion Co., Hazard.	Same	Below guaranty in pro- tein. No linseed oil meal present. Oat hulls, rice hulls, and peanut oil meal pres- ent.

TABLE IX.—MISCELLANEOUS MIXED FEEDS COMPOSED OF STRAIGHT BY-PRODUCTS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
2876-23	Marshall's 24% Dairy Feed.....	Kentucky Feed & Gain Co..... Louisville, y.	21.00	4.89
			24.00	4.50
2489-22	Premo Dairy Feed.....	Same	18.56	7.20
			16.50	3.00
2489-22	Same	Same	17.82	6.94
			16.50	3.00
2489-23	Same	Same	18.88	8.78
			16.50	3.00
2489-23	Same	Same	17.75	8.78
			16.50	3.00
2489-23	Same	Same	18.88	7.70
			16.50	3.00
2489-23	Same	Same	18.13	4.63
			16.50	3.00
4032-22	Success 24% Dairy Feed.....	Same	19.88	6.03
			24.00	4.50
3678-21	Premo Cattle Fatner.....	Same	15.38	5.75
			12.00	6.00
3678-21	Same	Same	14.38	5.60
			12.00	6.00
3678-22	Same	Same	14.25	4.90
			12.00	6.00
3679-21	Marshall's Horse and Mule Feed..	Same	9.03	3.16
			9.00	3.00
613-21	Success Horse and Mule Feed....	Same	10.75	4.06
			9.00	3.00
613-22	Same	Same	11.13	3.28
			9.00	3.00
613-22	Same	Same	9.99	3.37
			9.00	3.00
613-22	Same	Same	9.39	3.52
			9.00	3.00
613-22	Same	Same	9.79	3.70
			9.00	3.00

ANALYSES OF INSPECTORS' SAMPLES.

	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
23	Hazard Poultry & Supply Co., Hazard.	Cotton seed meal, linseed meal, alfalfa meal, wheat bran, corn feed meal, kaffir corn meal, rice bran, cane molasses, salt $\frac{1}{2}\%$	Below guaranty in protein.
22	J. B. Penn & Co. Georgetown.	Cotton seed meal, linseed meal, alfalfa meal, wheat bran, rice bran, corn feed meal, cane molasses, salt $\frac{1}{2}\%$	Unground wheat screenings, whole oats and kaffir corn product present. Ingredients not as guaranteed.
22	Same	Same	
23	Same	Same	Considerable rye middlings, oat hulls and ground weed seeds present. Ingredients not as guaranteed.
23	Lewis Wholesale Co. Whitesburg.	Same	Oat hulls, peanut oil meal and rice hulls present.
23	Hodgkin Grocery Co. ... Winchester.	Same	Ingredients not as guaranteed. Considerable rye middlings and weed seeds present.
23	J. H. Johnson	Same	No rice bran found. Rye middlings present.
22	Lexington Seed Co. Lexington.	Cotton seed meal, linseed meal, alfalfa meal, wheat bran, corn feed meal, kaffir corn meal, rice bran, cane molasses, salt 1%	Below guaranty in protein. Much inferior to guaranty.
21	E. T. Walker & Co. Glendale.	Cotton seed meal, corn feed meal, grey middlings, molasses, rice bran	Rice bran contains rice hulls and rice grains. Screenings from kaffir or milo, barley, alfalfa and wheat used.
21	Sam Carpenter	Same	In addition to guaranteed ingredients the feed contains ground oats, ground kaffir and milo and ground wheat screenings.
22	Vine Grove Feed Co. ... Vine Grove.	Same	Below guaranty in fat. Contains oat hulls, wheat screenings. No rice bran found.
21	Lexington Seed Co. Lexington.	Corn, oats, alfalfa meal, molasses, salt $\frac{1}{2}\%$	
21	George Keith	Same	In addition to guaranteed ingredients this feed contains wild oats, pin oats, barley and wheat.
22	Engle & Given Coal Co., Inc., Lexington.	Same	Above guaranty in fiber.
22	Harlan Grocery & Grain Co., Harlan.	Same	
22	Engle & Given Coal Co., Inc., Lexington.	Same	
22	J. B. Penn & Co. Georgetown.	Same	

TABLE IX.—MISCELLANEOUS MIXED FEEDS COMPOSED OF STRAIGHT BY-PRODUCTS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
613-22	Success Horse and Mule Feed....	Kentucky Feed & Grain Co.... Louisville, Ky.	10.24 9.00	4.15 3.00
3307-21	Premo Hog Meal	Same	15.38 12.00	5.80 4.00
3307-21	Same	Same	13.50 12.00	6.62 4.00
3307-21	Same	Same	14.69 12.00	8.21 4.00
3307-21	Same	Same	14.38 12.00	6.50 4.00
3307-21	Same	Same	15.63 12.00	7.48 4.00
3307-22	Same	Same	12.63 12.00	4.61 4.00
3307-22	Same	Same	14.63 12.00	4.59 4.00
3307-23	Same	Same	12.13 12.00	7.87 4.00
3307-23	Same	Same	12.25 12.00	8.49 4.00
3307-23	Same	Same	11.63 12.00	9.61 4.00
4288-22	White Mule Molasses Feed.....	Wm. H. Kramer..... Cincinnati, Ohio.	7.65 9.00	2.57 2.00
4288-22	Same	Same	8.11 9.00	2.58 2.00
3856-21	Badger Kramco Dairy Feed.....	Chas. A. Krause Milling Co. .. Milwaukee, Wis.	20.38 20.00	4.84 4.00

ANALYSES OF INSPECTORS' SAMPLES.

	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
22	J. B. Blanton Co. Frankfort.	Corn, oats, alfalfa meal, molasses, salt $\frac{1}{2}\%$	
21	J. B. Penn & Co. Georgetown.	Linseed meal, wheat middlings, corn feed meal, rice bran, ground barley, cane molasses, salt 1%	The rice bran contains rice hulls and rice grain ground. Kaffir corn or milo maize product present.
21	Engle & Given Coal Co., Inc., Lexington.	Same	
21	P. J. Weisenberger & Son Midway.	Same	
21	Williams Feed Co. Pikeville.	Same	Rice bran contains rice hulls and rice grains. Oats, wheat bran, weed seeds and wheat screenings present in addition to guaran- teed ingredients.
21	Lexington Seed Co. Lexington.	Same	No ground barley pres- ent. Whole oats found.
22	W. C. Wallace Caneyville.	Same	No rice bran present. Wheat bran, peanut meal, oat hulls and wheat screenings pres- ent in addition to guaranteed ingredi- ents.
22	Woosley & Co. Elizabethtown.	Same	Moldy odor, wheat bran, oats, kaffir corn and wheat screenings pres- ent in addition to guaranteed ingredi- ents.
23	Boston Flour Mills Boston.	Same	No barley found. Con- siderable rice hulls in rice bran. Oats, cot- ton seed meal and wheat screenings pres- ent.
23	Bohannon & Stedman ... Versailles.	Same	Considerable rice hulls and grain present. No barley found. Oats, ground weed seeds and ground wheat screen- ings found.
23	R. F. Collier & Co. Paris.	Same	Oat hulls present.
22	J. E. Stone & Co. Lexington.	Cracked corn, crushed oats, al- falfa meal	Only a trace of alfalfa meal present. Wheat bran found. Below guaranty in protein and much inferior to claim.
22	Bedford & Tuttle Winchester.	Same	Below guaranty in pro- tein and inferior to guarantee.
21	Flannery Bros. & Branch Olive Hill.	Hominy feed, dried beet pulp, old process linseed oil meal, cotton seed meal, gluten feed, Dis- tiller's dried grains, malt sprouts, wheat middlings, wheat bran (with screenings), corn feed meal, salt	No linseed oil meal pres- ent.

TABLE IX.—MISCELLANEOUS MIXED FEEDS COMPOSED OF STRAIGHT BY-PRODUCTS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis		
			Prot.	Fat	Cr.
4136-22	Krause Dairy Feed	Chas. A. Krause Milling Co.... Milwaukee, Wis.	22.88 24.00	5.88 5.00	8.00 10.00
2829-20	Badger Gain-Mor Feed.....	Same	11.75 12.00	3.74 4.00	8.00 9.00
4180-22	Same	Same	11.75 12.00	4.72 3.50	4.00 4.00
2394-21	Record Maker Dairy Feed.....	Ladish Milling Co. Milwaukee, Wis.	26.88 24.00	5.57 4.50	9.00 12.00
1841-21	Larro Feed	Larrowe Milling Co. Detroit, Mich.	20.38 20.00	3.83 3.50	11.00 12.00
1841-21	Same	Same	21.19 20.00	3.97 3.50	11.00 14.00
1841-23	Same	Same	21.00 20.00	4.67 4.00	11.00 12.00
3146-21	Gold Medal Dairy Feed.....	Louisville Seed Co. Louisville, Ky.	18.53 16.50	5.84 3.00	14.00 15.00
4027-22	Paragon Dairy Feed ...	Same	20.55 24.00	5.54 4.50	12.00 14.00
4027-22	Same	Same	23.63 24.00	7.39 4.50	9.00 14.00
4028-22	Paragon Horse and Mule Feed....	Same	10.04 9.00	3.53 3.00	7.00 12.00
3339-21	Wayne Special Horse Feed.....	The McMillen Co. Ft. Wayne, Ind.	9.56 9.00	3.35 3.00	6.00 10.00
4585-22	Marathon Dairy Feed	Nowak Milling Co. Buffalo, N. Y.	22.63 22.00	5.52 4.00	10.00 12.00
147-21	"Nutritia" Dairy Feed	The Nutritia Co..... Cincinnati, Ohio.	19.38 20.00	5.47 5.00	7.00 10.00

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
22	Borders & Fannin Catlettsburg.	Distiller's grains, copra meal, gluten feed, old process linseed oil meal, malt sprouts, cotton seed meal, hominy feed, wheat bran, wheat middlings (with screenings), salt	Below guaranty in protein.
20	Same	Maize flour, wheat middlings (with wheat screenings) ground kaffir corn	
22	Same	Corn flour, wheat middlings, ground wheat screenings 8%, salt 1%	Considerable corn bran present.
21	Queen & Turner Ashland.	Cotton seed meal, linseed meal, corn gluten feed, copra meal, ground oats, alfalfa meal, wheat bran (with ground screenings), molasses, salt	Corn feed meal present. Not guaranteed.
21	Patterson & Williams Feed Co., Russell.	Cotton seed meal, corn gluten feed, old process linseed oil meal, dried beet pulp, wheat middlings, wheat bran, salt 1%	
21	Ritter-Hennings Co. Louisville.	Same	
23	Pikeville Grocery Co. .. Pikeville.	Same	
21	Turner & Carty Barboursville.	Cotton seed meal, linseed meal, alfalfa meal, wheat bran, molasses, salt $\frac{1}{2}\%$	In addition to guaranteed ingredients this feed contains rice bran containing rice hulls, corn product, kaffir or milo product, unground wheat screenings, oats and oats hulls.
22	Same	Cotton seed meal, linseed meal, alfalfa meal, wheat bran, corn feed meal, kaffir corn meal, rice bran, cane molasses, salt 1%	Below guaranty in protein.
22	R. A. Dodd Nicholasville.	Cotton seed meal, linseed meal, alfalfa meal, wheat bran, corn feed meal, kaffir corn meal, rice bran, cane molasses, salt $\frac{1}{2}\%$	
22	Turner & Carty Barbourville.	Corn, oats, alfalfa meal, molasses, salt $\frac{1}{2}\%$	
21	Consolidated Grocery Co. Olive Hill.	Rolled corn, rolled oats, alfalfa, molasses	
22	R. D. Taylor Feed & Supply Co., Ashland.	Corn gluten meal, cocoanut oil meal, wheat bran, wheat middlings, corn gluten feed, cotton seed meal, linseed oil meal, dried yeast grains, salt $\frac{3}{4}\%$..	No cocoanut oil meal found.
21	J. H. Johnson Jackson.	Brewer's grains, malt sprouts, hominy meal, wheat mixed feed, linseed oil meal, gluten meal, cotton seed meal, corn meal, barley middlings, salt	Below guaranty in protein.

TABLE IX.—MISCELLANEOUS MIXED FEEDS COMPOSED OF STRAIGHT BY-PRODUCTS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
148-21	Sunshine Dairy Feed	The Nutritia Co..... Cincinnati, Ohio.	17.75 16.00	4.61 3.00
142-21	York Dairy Feed	Same	17.13 16.00	4.29 3.00
143-21	Nutritia Horse Feed	Same	11.13 10.50	3.00 3.50
1132-20	"Sunny South" Horse and Mule Feed	Ohio Valley Seed Co. Evansville, Ind.	10.75 10.00	1.80 2.50
1108-20	Cream Alfalfa Dairy No. 2.....	Omaha Alfalfa Milling Co..... Omaha, Neb.	16.13 16.00	2.03 2.50
1117-22	Alfalco Horse and Mule Feed.....	Same	9.50 10.00	4.00 2.00
1118-19	Grainfalmo Horse and Mule Feed	Same	11.58 10.00	1.26 2.00
1114-19	Perfection Horse and Mule Feed..	Same	9.78 10.00	3.36 2.00
1115-19	Peerless Horse and Mule Feed...	Same	10.81 10.00	2.41 2.00
4579-22	Omilco 24% Dairy Feed.....	Owensboro Milling Co..... Owensboro, Ky.	25.50 24.00	5.17 5.00
4580-22	Star Dairy Feed	Same	17.63 18.00	5.48 4.50
4306-22	Day's Work Horse and Mule Feed	Same	10.06 10.20	3.95 4.27
4306-22	Same	Same	11.38 10.20	3.85 4.27
1215-19	Steven's "44" Dairy Ration....	Park & Pollard Co. Chicago, Ill.	23.63 24.00	4.72 5.00
1215-20	Same	Same	23.25 24.00	5.27 5.00
4357-22	High Score Dairy Feed.....	M. C. Peters Mill Co. Omaha, Neb.	23.94 24.00	6.36 5.00

ANALYSES OF INSPECTORS' SAMPLES.

	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
21	W. M. Wells Hazard.	Hominy meal, wheat bran, wheat middlings, cotton seed meal, linseed oil meal, alfalfa meal, brewer's grain, molasses, salt	Distiller's dried grains and not brewer's dried grain. No linseed oil meal found.
21	I. E. Payne Eubank.	Ground oats, wheat mixed feed, malt sprouts, Brewer's grains, cotton seed meal, corn meal, barley middlings, gluten meal, corn bran, linseed oil meal, salt	Whole oats used. No corn gluten feed or linseed oil meal found. Cocoanut oil meal and kaffir or milo screenings found.
21	Crown Jewel Milling Co. Cynthiana.	Oats, crushed corn, wheat bran, alfalfa meal, cotton seed meal, brewer's grains, molasses, salt.	
20	Henderson Feed & Com- mission Co., Henderson.	Corn, oats, alfalfa, molasses.....	Below guaranty in fat and above in fiber. Crimped barley present.
20	Mayhew & Gilbert Franklin.	Alfalfa meal, corn meal, cotton seed meal, wheat bran, molasses	
22	Edw. M. Riedling Louisville.	Alfalfa meal, molasses, corn, oats.	Below guaranty in protein. No alfalfa meal found.
19	Same	Same	Below guaranty in fat. This feed is principally alfalfa meal.
19	David C. Frost & Duvall. Lexington.	Same	
19	Edw. M. Riedling Louisville.	Same	
22	Mfrs. Warehouse	Cotton seed meal, O. P. linseed oil meal, wheat bran, wheat shorts, corn feed meal, ground oats, ground barley, salt 1%...	Unground wheat screenings found.
22	Yates & Fowler Madisonville.	Cotton seed meal, wheat bran, wheat shorts, corn feed meal, ground oats, ground barley, salt 1%	No ground oats or barley found.
22	J. D. Whittaker..... Livermore.	Corn, oats, barley, wheat bran...	
22	J. D. Williams & Sons .. Beaver Dam.	Same	
19	George Keller Newport.	Oil meal, cotton seed meal, wheat bran, corn gluten feed, cocoanut oil meal, pea meal, brewer's dried grains, ground barley, wheat middlings, hominy meal, corn feed meal, buckwheat grits, malt sprouts, soybean meal, salt	
20	Same	Same	Below guaranty in protein.
22	The Mahan Co. Winchester.	Corn gluten feed, cotton seed meal, corn oil cake meal, linseed oil meal, bran, shorts, ground oats, hominy feed, corn feed meal	

TABLE IX.—MISCELLANEOUS MIXED FEEDS COMPOSED OF STRAIGHT BY-PRODUCTS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
3239-21	Peters "24" Dairy Feed.....	M. C. Peters Mill Co..... Omaha, Neb.	23.75 24.00	5.54 4.50
3237-22	Ivanhoe Horse and Mule Feed...	Same	10.63 9.00	3.68 3.50
643-20	Peters' Arab Horse Feed.....	Same	9.90 10.00	2.50 2.00
643-21	Same	Same	10.42 10.00	2.79 2.00
645-20	Peters' King Corn Horse and Mule Feed	Same	10.50 10.00	2.06 1.50
3504-21	"Poage's" Stock Feed.....	R. C. Poage Milling Co. Ashland, Ky.	14.75 12.50	4.82 4.00
3504-21	Same	Same	16.25 12.50	4.48 4.00
3504 21	Same	Same	15.63 12.50	4.98 4.00
3550-21	Polo Dairy Feed	Polo Mills Co. E. St. Louis, Ill.	20.25 20.00	4.98 3.50
3555-21	Holsum Horse Feed	Same	8.23 9.00	2.00 1.00
3333-21	American Molasses Horse Feed...	Prairie State Milling Co. Chicago, Ill.	10.23 9.00	3.33 2.50
3333-21	Same	Same	11.25 9.00	3.70 2.50
4368-22	Pratt's Supreme Dairy Ration...	Pratt Food Co. Philadelphia, Pa.	19.38 20.00	5.15 4.00
833-21	Schumacher Calf Meal	The Quaker Oats Co. Chicago, Ill.	19.81 18.00	9.03 8.00
1269-20	Schumacher Little Pig Meal.....	Same	19.25 17.00	7.05 6.00
1478-19	Purina Cow Chow Feed.....	Ralston Purina Co. St. Louis, Mo.	25.63 24.00	4.93 4.30

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
21	Owensboro Milling Co... Owensboro.	Cotton seed meal, corn feed meal, ground barley, oil meal, alfalfa meal, molasses	Below guaranty in pro- tein. Considerable wheat bran present. Wheat screenings and kaffir or milo screen- ings present.
22	American Coal & Feed Co., Louisville.	Corn, oats, alfalfa, molasses.....	
20	Laurel Grocery Co. East Bernstadt.	Same	
21	Louis Des Cognets & Co. Lexington.	Same	
20	Powell Hackney Grocery Co., Hazard.	Same	
21	Caudill-Blair Co. Morehead.	Ground wheat bran, wheat mid- dlings, ground weed seeds, ground wheat screenings 5%..	Oat product present.
21	J. W. Thornsbury..... Regina.	Same	
21	P. E. Caldwell Catlettsburg.	Same	
21	W. B. Ray Feed Co. Princeton.	Cotton seed meal, brewer's dried grains, corn gluten feed, al- falfa meal, molasses	Corn feed meal present.
21	J. H. White Rineyville.	Corn, oats, alfalfa meal, screen- ings from corn, oats, barley and kaffir 15%, molasses	Below guaranty in pro- tein.
21	Glass Milling Co. Wilmore.	Pure crimped oats, cracked corn, molasses, barley, bran, alfalfa meal	
21	J. H. Fedders & Sons ... Covington.	Same	Oats used are pin oats.
22	Louisville Hay & Grain Co., Louisville.	Corn feed meal, wheat bran, O. P. linseed oil meal, ground oats, corn gluten feed, cocoanut oil meal, cotton seed meal, ground grain screenings 13%, salt	
21	Williams Feed Co. Pikeville.	Oatmeal, ground flaxseed, milk albumen, old process linseed oil meal, bolted and sterilized blood flour, bicarbonate of soda $\frac{1}{2}\%$, ground puffed rice	
20	Same	Ground puffed wheat, ground flaxseed, old process linseed oil meal, hominy feed, yellow hom- iny feed, digester tankage, milk albumen, oatmeal, oat midd- lings, bicarbonate of soda $\frac{1}{2}\%$, calcium phosphate $\frac{1}{2}\%$, salt $\frac{1}{2}\%$	
19	Martin & Hodgkin Sup- ply Co., Winchester.	Linseed oil meal, (old process), gluten feed from corn, hominy feed, cotton seed meal, ground alfalfa, molasses, salt 1%	

TABLE IX.—MISCELLANEOUS MIXED FEEDS COMPOSED OF STRAIGHT BY-PRODU

Reg.No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
1478-21	Purina Cow Chow Feed.....	Ralston Purina Co. St. Louis, Mo.	25.00 24.00	5.30 4.30
1478-22	Same	Same	25.13 24.00	4.87 4.30
557-21	Purina O-Molene Feed.....	Same	10.17 9.70	3.16 3.20
557-22	Same	Same	10.28 9.70	3.55 3.20
2727-20	Star Special Feed	Same	10.13 9.70	3.38 3.20
1233-21	Purina Pig Chow	Same	19.88 20.00	4.51 3.20
1233-21	Same	Same	20.50 15.00	2.72 2.50
1233-21	Same	Same	22.13 20.00	4.37 3.20
3659-21	Rapier's 24% Protein Dairy Feed	Rapier Sugar Feed Co. Owensboro, Ky.	22.56 24.00	5.38 4.75
3659-22	Same	Same	26.13 24.00	4.72 4.75
422-21	Rapier's Creamo Dairy Feed.....	Same	16.50 16.50	2.99 3.50
422-22	Same	Same	19.38 16.50	3.88 3.50
422-22	Same	Same	17.00 16.50	2.90 3.50
422-22	Same	Same	17.00 16.50	3.25 3.50
422-22	Same	Same	19.75 16.50	4.39 3.50
422-23	Same	Same	17.00 16.50	3.87 3.50
3448-21	Rapier's 90% Horse and Mule Feed	Same	10.45 10.00	3.98 4.00
3448-23	Same	Same	10.00 10.00	3.92 4.00

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
21	W. W. Broaddus & Co... Richmond.	Old process linseed oil meal, gluten feed from corn, hominy feed, corn feed meal, cotton seed meal, ground alfalfa, molasses, salt 1%	
22	J. H. Fedders & Sons ... Covington.	Same	
21	Martin & Hodgkin Supply Co., Winchester.	Oats, cracked corn, molasses, ground alfalfa, salt 1%	
22	W. W. Broaddus & Co. ... Richmond.	Oats, cracked corn, old process linseed oil meal, ground alfalfa, molasses, salt 1%	
20	Manchester Grocery Co.. Manchester.	Cracked corn, oats, ground alfalfa, molasses, salt 1%	
21	Paducah Elev. & Bonded Warehouse, Paducah...	Hominy feed, cane molasses, corn meal, gluten feed from corn, digester tankage, old process linseed oil meal, wheat middlings, ground alfalfa, charcoal 1%, salt 1%	
21	W. W. Broaddus & Co... Richmond.	Same	
21	Same	Same	
21	Sharp & McCreary Corbin.	Linseed meal, cotton seed meal, corn feed meal, wheat bran, peanut meal, cane molasses, alfalfa meal, salt 1%	Below guaranty in protein. No corn feed meal found.
22	Elkins & Kimmel Greenville.	Same	
21	Glendale Mill & Elevator Co., Glendale.	Cotton seed meal, linseed meal, alfalfa meal, molasses, ground and bolted wheat and corn screenings 35%, salt 1%	
22	Trent & Bruner Irvington.	Same	
22	Taulbee & Co. Hazard.	Same	Oat hulls present. Below guaranty in fat.
22	F. J. Porter Bloomfield.	Same	Ground oat hulls and unground weed seeds present.
22	Jas. H. Albro & Co. Caneyville.	Same	No linseed oil meal found. Peanut meal and oat hulls present.
23	Harlan Grocery & Grain Co., Harlan.	Same	Oat hulls and ground weed seeds found.
21	Bell Grocery Co. Pineville.	Corn, oats, alfalfa, molasses, salt 1/2%	Pin oats present.
23	Harlan Grocery & Grain Co., Harlan.	Same	

TABLE IX.—MISCELLANEOUS MIXED FEEDS COMPOSED OF STRAIGHT BY-PRODUCTS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
420-22	Rapier's Red Wing Horse and Mule Feed	Rapier Sugar Feed Co. Owensboro, Ky.	11.50 9.00	2.80 2.00
420-22	Same	Same	11.00 9.00	3.34 2.00
423-19	Rapier's Pig Meal	Same	13.00 12.00	4.30 2.50
423-19	Same	Same	13.81 12.00	1.77 2.50
423-19	Same	Same	12.63 12.00	2.98 2.50
1601-18	Rapier's Honey Meal.....	Same	11.37 9.00	0.91 1.00
2918-20	Advance Dairy Feed	Rosenbaum Bros. Chicago, Ill.	17.81 16.00	3.68 3.50
2322-23	Roszbros Horse Feed.....	Roszell Bros. Lexington, Ky.	9.88 9.00	3.85 3.00
370-21	"Security" Dairy Feed.....	Security Mills & Feed Co. Knoxville, Tenn.	24.31 24.00	4.63 4.75
3700-21	Big H Horse and Mule Feed.....	Same	9.90 10.50	3.71 4.00
3700-21	Same	Same	10.04 10.50	3.61 4.00
3700-21	Same	Same	10.22 10.50	3.93 4.00
1232-20	Hog Feed	The Simmons Milling Co. Cincinnati, Ohio.	20.19 20.00	5.61 5.00
4304-22	Simco Buttermilk Hog Feed.....	Same	20.13 20.00	5.05 5.00
494-20	Atlas Dairy Feed	Southern Seed Co. Louisville, Ky.	21.81 18.00	5.70 3.00
4107-22	Diamond Dairy Feed.....	Same	22.75 20.00	5.79 3.50
2945-21	Standard Horse and Mule Feed...	Same	9.75 9.00	3.70 2.50

ANALYSES OF INSPECTORS' SAMPLES.

SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
2 The Lynn Mills Hodgenville.	Cracked corn, alfalfa meal, oats, cane molasses, salt 1%.....	
2 Fortney & Pulley Central City.	Same	
9 R. W. Jones & Son Hardinsburg.	Louisiana cane molasses, alfalfa leaf meal, old process linseed oil meal, recleaned ground wheat and corn screenings 35%, corn feed meal, salt 1%	No linseed oil meal pres- ent. Oat hulls pres- ent.
9 Franklin Mills Co. Franklin.	Same	Below guaranty in fat. Alfalfa meal and not alfalfa leaf meal used. Moldy odor.
9 F. J. Porter Bloomfield.	Same	Alfalfa meal and not al- falfa leaf meal used.
8 Smullen & Son Henderson.	Cane molasses, alfalfa meal, salt $\frac{1}{2}\%$	
10 Roszell Bros. Lexington.	O. P. linseed oil meal, cotton seed meal, corn feed meal, ground wheat, barley and kaffir corn screenings 35%, alfalfa meal, calcium carbonate 1%, salt, mo- lasses	Oat hulls present.
23 Same	Oats, cracked corn, molasses, al- falfa, salt 1%	
1 Pineville Produce Co. .. Pineville.	Linseed meal, wheat bran, wheat shorts, corn meal, corn hearts, brewer's dried grains, cotton seed meal, molasses, salt $\frac{1}{2}\%$	Corn gluten and oat product present.
21 The H. T. Hackney Co... Middlesboro.	Corn, oats, brewer's dried grains, alfalfa meal, molasses, salt $\frac{1}{2}\%$	Below guaranty in pro- tein and fat.
21 The H. T. Hackney Co... Harlan.	Same	
21 Same	Same	
20 Hess & Racke..... Alexandria.	Corn gluten feed, wheat midd- lings, corn meal, hominy feed, oil meal, digester tankage, copra meal, peanut kernel meal	Not tagged, sold in vio- lation of the law.
22 Alva West & Co. Maysville.	Dried buttermilk, corn gluten feed, wheat middlings, corn meal, hominy feed, old process linseed oil meal, blood and meat digester tankage, copra meal, peanut kernel meal, salt	
20 Elkhorn Coal Corporation Fleming.	Alfalfa meal, cotton seed meal, corn meal, molasses, salt $\frac{1}{2}\%$	Brewer's grains, cotton seed meal and wheat middlings present.
22 Powell-Hackney Co. Hazard.	Wheat middlings, cotton seed meal, corn meal, rolled oats, cracked corn, salt $\frac{1}{2}\%$	No cracked corn found.
21 Woodson Coal & Feed Co. Middlesboro.	Corn, oats, alfalfa meal, molasses, salt $\frac{1}{2}\%$	

TABLE IX.—MISCELLANEOUS MIXED FEEDS COMPOSED OF STRAIGHT BY-PRODUCTS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
2971-21	Molasses Chop Feed.....	Southern Seed Co.....	9.50	3.77
		Louisville, Ky.	8.00	2.50
4103-22	The National Dairy Feed.....	The Sugarine Co.	21.13	4.24
		Owensboro, Ky.	20.00	4.50
4103-22	Same	Same	20.63	5.18
			20.00	4.50
6078-22	Universal Dairy Feed	Same	19.00	3.72
			16.50	3.00
3078-22	Same	Same	18.00	3.53
			16.50	3.00
3078-23	Same	Same	17.25	3.48
			16.50	3.00
2014-21	Suco Dairy Feed	Same	22.00	4.51
			20.00	4.00
2014-21	Same	Same	21.56	4.49
			20.00	4.00
2014-21	Same	Same	22.13	4.26
			20.00	4.00
4104-22	Sugarine Record Dairy Feed.....	Same	21.44	5.64
			24.00	4.50
2868-21	Hi-Grain Alfalfa Horse Feed.....	Same	10.25	3.09
			10.00	2.50
2868-21	Same	Same	10.31	3.89
			10.00	2.50
2868-22	Same	Same	9.56	3.53
			10.00	2.50
2015-21	Sugarine Alfalfa Horse Feed.....	Same	10.19	3.53
			10.00	2.50
2015-22	Same	Same	9.54	3.46
			10.00	2.50
2015-22	Same	Same	10.08	3.28
			10.00	2.50
4101-22	Sugarine Record Horse Feed.....	Same	9.15	2.91
			10.00	2.50

ANALYSES OF INSPECTORS' SAMPLES.

o.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
21	Woodson Coal & Feed Co Middlesboro.	Corn, oats, molasses.....	
22	Wisconsin Steel Co. Benham.	Cotton seed meal, copra meal, peanut meal, hominy, wheat bran, grain screenings 15%, ground oats, alfalfa meal, mo- lasses, salt, calcium carbonate ½ %	Corn gluten feed present. No copra meal or al- falfa meal found.
22	Jellico Grocery Co. Barbourville.	Same	
22	J. H. Fedders & Sons ... Covington.	Cotton seed meal, copra meal, gluten feed, corn meal, alfalfa meal, wheat bran, molasses, salt ½ %	
22	Boone County Farm Bu- reau, Florence.	Same	No copra meal found.
23	Same	Same	Same.
21	Thompson Grocery Co... Pineville.	Wheat bran, linseed meal, prime cotton seed meal, prime pea- nut meal, cocoanut meal, corn feed meal, molasses, alfalfa meal, calcium carbonate ½ %, salt ½ %	
21	Jellico Grocery Co. Corbin.	Same	
21	Wisconsin Steel Co. Benham.		
22	Anderson & Spilman.... Danville.	Cotton seed meal, linseed meal, copra meal, peanut meal, al- falfa meal, wheat bran, ground oats, hominy feed, molasses, calcium carbonate ½ %, salt ½ %	Much below guaranty in protein. Ground wheat screenings pres- ent.
21	Thompson Grocery Co... Pineville.	Molasses, alfalfa, corn, barley, oats	
21	Jellico Grocery Co. Corbin.	Same	
22	The Mahan Co. Hazard.	Molasses, alfalfa, corn, barley, oats	
21	Crescent Milling Co. ... Cynthiana.	Molasses, alfalfa, corn, oats, bar- ley, salt ½ %	The oats used in this feed are wild and pin head oats.
22	Jellico Grocery Co. Barbourville.	Corn, oats, alfalfa, molasses, salt.	Excess of cracked corn.
22	The Dorsel Co. Newport.	Same	
22	Jellico Grocery Co..... Harlan.	Cracked corn, oats, alfalfa, mo- lasses, salt	Below guaranty in pro- tein.

TABLE IX.—MISCELLANEOUS MIXED FEEDS COMPOSED OF STRAIGHT BY-PRODUCTS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
2020-22	Sugarine Hog Meal.....	The Sugarine Co..... Owensboro, Ky.	15.94 18.00	4.00 4.00
2023-20	Sugarine Calf Meal.....	Same	19.25 18.00	3.53 4.00
2023-20	Same	Same	18.25 18.00	4.02 4.00
4409-22	Sugar Jack Dairy Feed.....	Tri-State Vegi Feed Co..... Cincinnati, Ohio.	18.13 18.00	4.16 4.00
4409-22	Same	Same	18.50 18.00	4.31 4.00
4409-23	Same	Same	18.00 18.00	3.76 4.00
131-21	"Union Grains" Ubiko Biles Ready Dairy Ration.....	The Ubiko Milling Co. Cincinnati, Ohio.	23.63 24.00	5.69 5.00
131-21	Same	Same	24.25 24.00	5.58 5.00
131-21	Same	Same	24.13 24.00	5.65 5.00
4374-22	Crusader Horse Feed	Same	10.24 10.00	4.32 3.00
4374-22	Same	Same	10.26 10.00	4.28 3.00
1984-20	Ubiko Pig Meal.....	Same	18.88 18.00	6.67 5.00
4569-22	Weaverton Dairy Feed.....	Weaverton Milling Co. Henderson, Ky.	15.25 15.56	5.95 4.67
3713-22	Perfection Dairy Feed.....	Winchester Roller Mills..... Winchester, Ky.	21.00 20.00	4.54 4.00
3713-22	Same	Same	20.50 20.00	4.05 4.00

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
22	Lake Bros. Springfield.	Cocoanut meal, germ oil meal, ground oats, corn meal, linseed meal, ground and bolted wild buckwheat and wheat, blood flour, peanut meal, alfalfa meal, molasses, calcium carbonate $\frac{1}{2}\%$, salt $\frac{1}{2}\%$	Below guaranty in protein. Corn gluten feed present. No germ oil meal, linseed meal or peanut meal found.
20	Pendleton Flour Mills .. Falmouth.	Blood flour, bone meal, soluble starch, malt flour, dried skim milk, corn feed meal, linseed meal, wheat middlings	Ground wheat screenings and salt present.
20	Amos Yeager	Same	Considerable ground wheat screenings present.
22	Perry Feed & Commission Co., Hazard.	Corn, oats, barley, wheat bran, alfalfa, cotton seed meal, old process linseed oil meal, malt, salt	
22	Roszell Bros. Lexington.	Same	
23	Blackey Flour & Feed Co., Blackey.	Same	Above guaranty in fiber.
21	Danville Ice & Coal Co., Danville.	Corn distiller's dried grains, choice cotton seed meal, O. P. linseed meal, white wheat middlings, winter wheat bran, hominy meal, corn germ meal, corn gluten feed, brewer's dried grains, fine table salt $\frac{1}{2}\%$	
21	J. H. Fedders & Sons ... Covington.	Same	
21	J. S. Wilson & Bro. Paris.	Same	
22	J. H. Fedders & Sons .. Covington.	Corn, oats, alfalfa, molasses.....	
22	Boone County Farm Bureau, Florence.	Same	
20	Danville Ice & Coal Co., Danville.	Digester tankage, wheat middlings, hominy feed, cocoanut oil meal, germ oil meal, old process linseed meal, rye middlings, salt	Corn cob present.
22	Mfrs. Warehouse	Wheat bran, alfalfa meal, corn feed meal, wheat shorts, cotton seed meal	Corn gluten feed and oat hulls present but not guaranteed. Cocoanut meal and alfalfa meal guaranteed but not found.
22	J. R. Blake	Wheat bran, linseed meal, prime cotton seed meal, prime peanut meal, cocoanut meal, corn feed meal, molasses, alfalfa meal, calcium carbonate $\frac{1}{2}\%$, salt $\frac{1}{2}\%$	No peanut meal, cocoanut meal or alfalfa meal found. Gluten feed and oat hulls and wheat screenings found.
22	C. S. Cartee	Same	
	Olive Hill.		

TABLE IX.—MISCELLANEOUS MIXED FEEDS COMPOSED OF STRAIGHT BY-PRODUCTS

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
.....	O-Kay Horse and Mule Feed.....	Winchester Roller Mills..... Winchester, Ky.	8.25	2.82
3185-21	P. P. P. 24% Molasses Dairy Feed	Wood, Stubbs & Co. Louisville, Ky.	19.19	7.08
			24.00	4.50
4436-22	Yellow Diamond Dairy Feed.....	Woolcott Flour Mills Lexington, Ky.	25.56	7.99
			21.13	5.72
4436-22	Same	Same	18.00	4.00
			21.13	5.72
4435-22	Green Diamond Horse Feed.....	Same	9.16	3.67
			9.89	3.96
4435-22	Same	Same	10.19	3.94
			9.89	3.96
4171-21	Imperial Dairy Feed.....	Ziliak & Schafer Milling Co. .. Evansville, Ind.	11.14	2.75
			15.00	2.00
4170-22	Elite Pig Meal.....	Same	17.75	4.75
			17.00	3.50

ANALYSES OF INSPECTORS' SAMPLES.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
	Marion Coal Co..... Blackey.		Not labeled in accordance with law.
21	D. H. Prewitt Danville.	Cotton seed meal, linseed oil meal, alfalfa meal, wheat bran, corn meal, cane molasses, salt $\frac{1}{2}\%$	Pin oats present. Below guaranty in protein.
22	Junior Feed Store Hazard.	Alfalfa meal, corn feed meal, cotton seed meal, linseed meal, wheat bran, rice bran, kaffir corn meal, cane molasses, salt $\frac{1}{2}\%$	
22	S. L. Cummins Crab Orchard.	Same	Contains clipped oat by-product or oat feed (oat hulls and oat middlings), also ground and bottled grain screenings.
22	M. R. Wheldon Waynesburg.	Alfalfa meal, corn, oats, molasses, salt $\frac{1}{2}\%$	Below guaranty in protein.
22	Junior Feed Store..... Hazard.	Same	
22	J. F. Whitsell Sturgis.	Wheat bran, hominy feed, corn feed meal, cotton seed meal, linseed oil meal, alfalfa meal, molasses	Below guaranty in protein and a very inferior product to guaranty.
22	City Feed Co. Lexington.	Wheat middlings, corn feed meal, Hominy feed, tankage, salt ..	Linseed oil meal present.

TABLE X.—MISCELLANEOUS MIXED FEEDS CONTAINING

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
312-22	Acme Stock Feed.....	Acme-Evans Co. Indianapolis, Ind.	8.56 9.00	3.06 3.50
312-22	Same	Same	8.75 9.00	3.68 3.50
312-23	Same	Same	7.00 9.00	3.41 3.50
3595-23	High Flow Dairy Feed.....	Alfocorn Milling Co. St. Louis, Mo.	10.63 9.00	3.57 1.50
3094-21	"High-Kick" Horse & Mule Feed	Same	9.60 9.00	3.03 1.50
373-22	Sucrene Dairy Feed.....	American Milling Co..... Peoria, Ill.	19.13 16.50	4.54 3.50
373-22	Same	Same	17.38 16.50	4.48 3.50
2833-22	Empire 20% Dairy Feed.....	Same	21.63 20.00	4.67 4.00
4623-22	Amco Chop Feed.....	Same	8.13 8.00	3.46 3.00
379-22	Sucrene Horse & Mule Feed.....	Same	8.33 9.00	2.43 2.50
4064-23	Red "A" Dairy Feed.....	Aubrey & Co. Louisville, Ky.	12.88 12.00	3.27 2.00
4065-22	Monarch Dairy Feed.....	Same	16.44 16.00	3.95 3.00

MATERIAL OF LITTLE OR NO FEEDING VALUE.

o.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
22	W. E. Wilson Russellville.	Corn, homlik, corn feed meal, wheat bran, wheat middlings, hominy meal, oat middlings and oat hulls, 30%, salt	Below guaranty in protein and fat and above in fiber.
22	Powell-Hackney Grocery Co., Jackson.	Same	Above guaranty in fiber. No wheat bran or wheat middlings present.
23	Lanham-Terrell Grocery Co., Corbin.	Same	Below guaranty in protein and above in fiber. No wheat bran or wheat middlings present. Inferior product.
23	Chappell Grocery Co.... Pineville.	Corn gluten feed, whole ground yellow corn meal, wheat middlings, reground and bolted wheat screenings 20%, oat middlings, oat shorts and oat hulls 20%, sugar cane molasses, salt $\frac{1}{2}$ %	Ground weed seeds present.
21	J. S. Holland Co. Jackson.	Cracked corn, alfalfa meal, oat middlings, oat shorts and oat hulls 10%, rice bran, molasses, salt $\frac{1}{2}$ %	No rice bran present. Ground weed seeds, barley product, and wheat bran present but not guaranteed.
22	Jas. A. Wallace Irvine.	Corn distiller's dried grains, prime cotton seed meal, linseed oil meal, cocoanut oil meal, corn gluten feed, corn feed meal, wheat bran, ground and bolted grain screenings 15%, clipped oat by-product 15%, molasses, salt 1%, calcium carbonate 1%	Above guaranty in fiber.
22	David C. Frost & Duvall Lexington.	Same	
22	R. C. Poage Milling Co... Ashland.	Wheat bran, linseed oil meal, prime cotton seed meal, prime peanut oil meal, cocoanut oil meal, corn gluten feed, corn distiller's dried grains, corn feed meal, molasses, clipped oat by-products 10%, salt 1%, calcium carbonate 1%	
22	Staggs Bros. Co. Vanceburg.	Corn feed meal, oat shorts, oat middlings and oat hulls 35%.	
22	T. L. Hardy Berry.	Molasses, corn, oats, oat middlings, oat shorts and oat hulls 45% barley, salt $\frac{1}{4}$ %	Wild oats present. Below guaranty in protein.
23	M. Woosley & Son..... Elizabethtown.	Cotton seed meal, alfalfa meal, cotton seed hulls 20%, Flax plant by-product 5%, clipped oat by-product 10%, brewers' grains, molasses, salt $\frac{1}{2}$ % ..	Corn feed meal found. No brewers' dried grains present. Fiber guarantee is too high.
22	Blackey Flour & Feed Co. Blackey.	Brewers' dried grain, cotton seed meal, alfalfa meal, cotton seed hulls 10%, flax plant by-product 10%, clipped oat by-product 5%, molasses, salt	Wheat bran and corn meal present, oat by-product in excess of 5% as claimed.

TABLE X.—MISCELLANEOUS MIXED FEEDS CONTAINING

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
3611-22	Dandy Horse Feed.....	Aubrey & Co. Louisville, Ky.	8.36 8.00	3.14 2.00
3611-23	Same	Same	8.63 8.00	3.60 2.00
3823-22	Horse, Mule and Dairy Feed.....	Beaty Bros. Science Hill, Ky.	8.38 9.19	3.86 4.54
2493-21	Pawnee Sweet Dairy Feed.....	The Corno Mills Co. St. Louis, Mo.	20.63 20.00	3.68 3.50
2357-20	Nutro Sweet Dairy Feed.....	Same	18.38 16.00	3.73 3.50
2357-22	Same	Same	18.38 16.00	3.65 3.50
2357-22	Same	Same	17.00 16.00	3.63 3.50
228-21	Corno Horse & Mule Feed.....	Same	8.88 10.00	2.75 3.50
3827-22	Corno Stock Feed.....	Same	9.00 9.00	3.98 5.00
3827-22	Same	Same	8.25 9.00	3.19 5.00
3827-22	Same	Same	8.25 9.00	4.44 5.00
3827-22	Same	Same	7.63 9.00	3.47 5.00
4615-22	Corno Oat By-Product Feed.....	Same	6.38 6.00	2.08 2.00
3405-22	Noco Stock Feed.....	The Corno Mills Co. (National Oats Co.) St. Louis, Mo....	8.50 9.00	2.90 5.00
4127-22	Shamrock Stock Feed.....	The Corno Mills Co., (Sham- rock Mills) E. St. Louis, Ill..	7.75 9.00	4.17 5.00
4093-22	"Double D" Special Dairy Feed..	D. A. Davis & Son..... Jeffersontown, Ky.	15.63 17.63	5.82 7.55
1766-21	Red Crown Horse & Mule Feed...	Diamond Mills	10.94 9.00	3.20 2.00

MATERIAL OF LITTLE OR NO FEEDING VALUE.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS.—VARIANCE FROM GUARANTY
22	Hazard Poultry & Supply Co., Hazard.	Oats, corn, alfalfa meal, oat middlings and oat hulls, 25%, salt $\frac{1}{2}$ % molasses	Guarantee in fiber is too high.
23	Lewis & Co. Viper.	Same	No alfalfa meal present.
22	C. E. Cain Whitley City.	Crushed corn, crushed cob 8%, oats	Inferior to guarantee. Below guarantee in both protein and fat.
21	Powell-Hackney Grocery Co., Hazard.	Gluten feed, cotton seed meal, wheat bran, oat middlings, oat shorts and oat hulls, 14%, choice alfalfa meal, linseed meal, molasses, salt 1%	Corn product present.
20	Wm. Addams Cynthiana.	Wheat bran, cotton seed meal, oat middlings, oat shorts and oat hulls, 20%, alfalfa meal, molasses	Rice bran present. No alfalfa meal found.
22	F. B. Marksbury & Co... Lancaster.	Wheat bran, cotton seed meal, oat middlings, oat shorts and oat hulls 15%, alfalfa meal, molasses	
22	Powell-Hackney Co. Hazard.	Same	Corn feed meal present.
21	W. L. Kimbrough & Son. Guthrie.	Ground alfalfa, cracked corn, ground whole oats, hominy feed, cotton seed meal, oat middlings, oat shorts and oat hulls, 15%	Inferior product. Below guaranty in protein and fat and above in fiber.
22	D. Ballard Masters Co. .. Ravenna.	Hominy feed, corn meal, oat middlings, oat shorts and oat hulls, 25%, ground wheat screenings 5%, salt 1%	
22	Cumberland Grocery Co. Junction City.	Same	Below guaranty in protein and fat.
22	London Grocery Co. London.	Same	Below guaranty in protein and fat.
22	W. L. Kimbrough & Son. Guthrie.	Same	Inferior product. Much below guaranty in protein and fat and above in fiber.
22	Dennes-Cobern & Co. ... Olive Hill.	Oat middlings, oat shorts, oat hulls	
22	Lanham-Terrell Grocery Co., Corbin.	Same	Below guaranty in protein.
22	The Mahan Co. Hazard.	Same	Excess of oat hulls present. Below guaranty in protein and fat, and above in fiber.
22	Mfrs. Warehouse	Rice bran, cotton seed meal, oil meal, oat hulls 25%, oat middlings, oat shorts, ground corn, salt $\frac{1}{2}$ %	Inferior product. Below guaranty in protein and fat and above in fiber.
21	Corum Bros. Madisonville.	Corn, oats, alfalfa meal, molasses, clipped oat by-product 10% ...	

TABLE X.—MISCELLANEOUS MIXED FEEDS CONTAINING

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
3753-22	P. D. Q. Special Feed.....	Ferncliff Feed & Grain Co. Louisville, Ky.	9.22 9.00	2.88 1.50
591-20	Golden Grain Mills Dairy Feed...	Golden Grain Milling Co. E. St. Louis, Ill.	13.60 15.00	1.98 2.50
689-19	Gold Flake Dairy Feed.....	Hales & Edwards Co. Chicago, Ill.	17.50 16.00	3.56 3.50
689-19	Same	Same	13.73 16.00	2.97 3.50
689-19	Same	Same	13.50 16.00	3.40 3.50
689-23	Same	Hales & Hunter Co. Chicago, Ill.	10.12 16.00	2.48 3.50
4459-22	H. & H. White Stock Feed.....	Same	9.50 10.00	3.32 2.50
3490-21	Special Dairy Feed.....	P. H. Harsha	16.19 15.00	7.84 4.50
1005-20	International Special Dairy Feed..	International Sugar Feed No. 2 Co., Memphis, Tenn.	17.13 15.00	3.49 4.50
3352-22	Same	Same	16.88 15.00	3.60 4.50
3352-22	Same	Same	17.88 15.00	5.20 4.50
3352-22	Same	Same	15.63 15.00	4.58 4.50
989-20	International Jewel Dairy Feed..	Same	10.42 9.00	2.71 2.00

MATERIAL OF LITTLE OR NO FEEDING VALUE.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
-22	C. L. Winn Irvington.	Cracked corn, white oats, alfalfa meal, cane molasses, oat middlings, oat shorts and oat hulls, 25%	Considerable kaffir or milo screenings present.
-20	Middlesboro Wholesale Grocery Co., Poor Fork	Cotton seed meal, alfalfa meal, clipped oat by-product 20%, molasses, salt $\frac{1}{2}$ %	Below guaranty in protein and fat.
-19	Edw. M. Riedling Louisville.	Cotton seed meal, corn gluten feed, linseed oil meal, molasses, clipped oat by-product 25%, ground and bolted wheat, barley and kaffir corn screenings 25%, salt	Ground weed seeds present.
-19	C. S. Brent Seed Co. Lexington.	Cotton seed meal, corn gluten feed, linseed oil meal, molasses, clipped oat by-product 25%, ground and bolted wheat, barley and kaffir corn screenings 25%, salt	No linseed oil meal present. Below guaranty in protein and fat, inferior to claims.
-19	Kentucky Feed Co. Flemingsburg.	Same	No corn gluten feed or linseed oil meal present. Below guaranty in protein. A very inferior product to guaranty.
-23	C. S. Brent Seed Co. Lexington.	Same	Ground weed seeds present. Corn meal used, no gluten feed used as claimed. Below guaranty in protein and fat and above in fiber. Inferior product to guarantee.
-22	Edw. M. Riedling Louisville.	Corn feed meal, hominy feed, red dog flour, oat middlings, oat shorts and oat hulls 25%	Below guaranty in protein.
-21	Burg Kinner Greenup.	Corn gluten feed, wheat bran, molasses, old process linseed oil meal, cotton seed meal, ground clipped oat by-product 15%, ground grain screenings 35%, salt	Excess of clipped oat by-product and grain screenings used. Large per cent weed seeds present. No corn gluten feed found.
5-20	Graves County Farm Bureau, Mayfield.	Cotton seed meal, molasses, ground clipped oat by-product 15%, ground and bolted grain screenings 35%, linseed oil meal, corn gluten feed, wheat bran, salt $\frac{1}{2}$ %	Below guaranty in fat.
2-22	Calloway County Farm Bureau, Murray	Same	Below guaranty in fat.
2-22	J. J. Shaver & Co. Mayfield.	Same	
2-22	Y. J. H. Lancaster Wingo.	Same	Above guaranty in fiber. No corn gluten feed found, but corn meal instead.
39-20	W. N. Neville Arlington.	Corn feed meal, clipped oat by-product 60%, alfalfa meal, cotton seed meal, molasses, salt.	Ground weed seeds present. No corn product found.

TABLE X.—MISCELLANEOUS MIXED FEEDS CONTAINING

Reg.No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
3732-21	Kentucky Star Dairy Feed.....	Kentucky Feed & Grain Co. .. Louisville, Ky.	13.00 12.00	2.90 3.00
3732-22	Same	Same	16.63 12.00	5.59 3.00
3732-22	Same	Same	19.81 16.50	4.82 3.50
3732-22	Same	Same	17.25 16.50	7.90 3.50
3510-21	Kentucky Star Horse and Mule Feed	Same	8.44 8.00	2.64 1.50
3510-21	Same	Same	8.13 8.00	2.98 1.50
4802-23	Sedan Horse and Mule Feed.....	Same	9.25 8.00	3.91 2.00
4464-22	Bingo Dairy Feed.....	Chas. A. Krause Mil. Co..... Milwaukee, Wis.	9.50 12.00	4.25 3.00
4464-22	Same	Same	12.00 12.00	5.88 3.00
4139-22	Badger 16½% Sweet Dairy Feed.	Same	16.81 16.50	4.54 3.50
4139-22	Same	Same	16.63 16.50	6.49 3.50
4139-23	Same	Same	15.50 16.50	6.20 3.50
1705-22	Badger Stock Feed.....	Same	7.75 10.00	3.00 3.25

MATERIAL OF LITTLE OR NO FEEDING VALUE.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
1	Mfrs. Warehouse	Cotton seed meal, corn feed meal, wheat bran, oat middlings and oat hulls 20%	
1	Engle & Given Coal Co., Lexington.	Same	Alfalfa meal and whole oats present but not included in ingredients.
2	R. D. Riedling, Louisville.	Cotton seed meal, alfalfa meal, palmo middlings, rice bran, peanut meal, oat middlings and oat hulls 20%, molasses	No rice bran present. Wheat bran, corn meal and linseed oil meal found but not guaranteed.
2	D. B. Sutherland & Sons, Bloomfield.	Same	No peanut meal present.
21	Ross & Zeitz, Louisville.	Alfalfa meal, whole oats, corn, oat middlings and oat hulls, 20%, molasses, salt	
21	Perry Feed & Commission Co., Hazard.	Same	
23	The Eversole Co., London.	Cracked corn, white oats, oat middlings and oat hulls 20%, molasses, salt 1%	
23	Ashland Supply Co., Ashland.	Molasses, malt sprouts, whole ground and bolted wheat screenings 40%, oat middlings, oat shorts and oat hulls 35%, salt	Considerable ground weed seeds present. Below guaranty in protein and above in fiber. Inferior product.
22	Borders & Fannin, Catlettsburg.	Same	Above guaranty in fiber. No malt sprouts found. Ground weed seeds, flax plant by-product, corn meal and wheat bran present, but not guaranteed.
22	Van Hoose Adams Co. .., Ashland.	Cotton seed meal, malt sprouts, ground and bolted wheat screenings 30%, molasses, flax plant by-products 20%, oat middlings, oat shorts and oat hulls 35%, alfalfa meal, salt	Considerable weed seeds present. Flax plant by-product in excess of guarantee.
22	Ashland Supply Co., Ashland.	Same	Considerable weed seeds present. No malt sprouts found. Corn meal and wheat bran present but not included in ingredients.
-23	R. D. Taylor Feed & Supply Co., Ashland.	Same	Considerable weed seeds present. No malt sprouts found. Corn meal and wheat bran present, but not guaranteed. Below guaranty in protein.
-22	J. M. Bush, Ashland.	Hominy feed, oat middlings, oat shorts, and oat hulls 35%, salt.	Corn product is corn feed meal instead of hominy feed. Below guaranty in protein and fat and above in fiber. A very inferior product.

TABLE X.—MISCELLANEOUS MIXED FEEDS CONTAINING

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
1705-22	Badger Stock Feed	Chas. A. Krause Mill. Co. Milwaukee, Wis.	8.38 10.00	2.97 3.25
2427-21	National Stock Feed.....	Ladish Milling Co. Milwaukee, Wis.	11.25 9.00	2.79 3.00
4518-22	Jefferson Farm Feed.....	Lafayette Corn Flour Mills.... Louisville, Ky.	10.50 12.50	5.65 4.50
4302-22	Radio Horse and Mule Feed....	Louisville Seed Co. Louisville, Ky.	10.75 8.00	3.50 1.50
4024-22	Jumbo Dairy Feed.....	The McMillen Co. Ft. Wayne, Ind.	15.25 16.00	3.35 3.50
4024-22	Same	Same	15.00 16.00	3.75 3.50
4069-22	Jumbo Stock Feed.....	Same	8.38 9.00	3.34 3.50
3552-21	Diamond Dairy Feed.....	Polo Mills Co. E. St. Louis, Ill.	16.25 16.50	8.71 3.50
3552-21	Same	Same	16.25 16.50	7.03 3.50
3552-21	Same	Same	18.25 16.50	6.53 3.50
4821-23	Economic Horse Feed.....	Prairie State Milling Co. Chicago, Ill.	7.74 7.00	2.25 0.50
1723-22	Green Cross Horse Feed.....	Quaker Oats Co. Chicago, Ill.	10.02 10.00	2.95 2.50

MATERIAL OF LITTLE OR NO FEEDING VALUE.

No.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
2	Ashland Supply Co. Ashland.	Hominy feed, oat middlings, oat shorts, and oat hulls, 35%, salt.	Corn product is corn feed meal instead of hominy feed. Below guaranty in protein and above in fiber, inferior product.
21	Queen & Turner Ashland.	Cotton seed meal, corn feed meal, oat middlings, oat shorts and oat hulls, 13%, salt	Oat hulls in excess of guarantee.
22	Chappell Grocery Co. ... Pineville.	Wheat middlings, hominy feed, oat middlings, oat shorts and oat hulls, 25%	Below guaranty in protein. Inferior to claims.
22	Sandy Valley Grocery Co. Paintsville.	Alfalfa meal, whole oats, corn, oat middlings and oat hulls, 20%, molasses, salt 1%	Peanut oil meal and ground weed seeds present.
22	Consolidated Grocery Co. Jenkins.	Malt sprouts, brewers' dried grains, wheat bran, cotton seed meal, linseed oil meal, corn meal, oat middlings, oat shorts and oat hulls 10%, ground and bolted screenings from wheat, corn, oats, barley, kaffir, buckwheat and flax 10%, molasses, salt 1%	Below guaranty in protein and above in fiber.
22	Moore & Moore Louisa.	Same	Same.
22	Poage-Wall Milling Co... Catlettsburg.	Ground corn, ground oats, ground barley, ground kaffir, corn feed meal, ground and bolted screenings from wheat, corn, oats, barley, kaffir, buckwheat, millet and sunflower seed 10%, oat middlings, oat shorts and oat hulls, 10%	Below guaranty in protein. Oat by-product and corn product are the chief ingredients from which feed is made.
-21	Henry E. Eilers & Son.. Louisville.	Cotton seed meal, clipped oat by-product 30%, ground flax seed screenings 40%, molasses	Corn feed meal, rice bran and wheat screenings present but not guaranteed.
-21	Marion Milling Co. Marion.	Same	Wheat screenings present.
-21	Rea & Rice Earlington.	Same	Considerable barley product, kaffir or milo product, and corn product present. Large amount of weed seeds present. Little if any flaxseed product present.
-23	Kentucky River Coal & Feed Co., Irvine.	Crimped oats cracked corn, barley, alfalfa meal, clipped oat by-product 10%, oat shorts, oat middlings and oat hulls, 10%, Molasses.	Guaranty in fiber is too high.
-22	Leslie Bailey Corinth.	Cracked corn, crushed oats, cotton seed meal, alfalfa meal, molasses, oat middlings, oat shorts and oat hulls 14%, salt $\frac{3}{4}$ %	Weed seeds present.

TABLE X.—MISCELLANEOUS MIXED FEEDS CONTAINING

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
840-21	Schumacher Feed	Quaker Oats Co. Chicago, Ill.	12.25 10.00	4.01 8.25
3576-22	Sugared Schumacher Feed	Same	9.38 10.00	4.52 3.25
3576-22	Same	Same	10.13 10.00	3.66 3.25
3576-22	Same	Same	9.88 10.00	3.48 3.25
3631-22	Rapier's Fat Maker No. 2.....	Rapier Sugar Feed Co. Owensboro, Ky.	14.13 12.50	3.25 2.50
4838-23	Magnolia Dairy Feed.....	R. D. Riedling	16.88 16.50	4.48 3.50
4839-23	Magnolia Horse and Mule Feed..	Same	8.88 8.00	3.65 1.50
3885-21	"Old Black Joe" Sweet Feed....	Royal Feed & Milling Co. Memphis, Tenn.	11.00 9.00	3.50 1.50
2731-23	Economy Dairy Feed.....	Southern Feed & Grain Co. Louisville, Ky.	16.25 16.00	4.13 3.00
2731-23	Same	Same	16.38 16.00	4.33 3.00
160-20	Eagle Dairy Feed.....	Southern Seed Co. Louisville, Ky.	11.31 12.00	2.34 2.00
160-22	Same	Same	13.94 12.00	2.95 2.00
160-23	Same	Same	14.38 12.00	4.04 2.00

MATERIAL OF LITTLE OR NO FEEDING VALUE.

SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
1 T. W. Pollock..... Wickliffe.	Ground corn hominy feed, yellow hominy feed, ground barley, cotton seed meal, old process linseed oil meal, low grade wheat flour, wheat bran, wheat middlings, oat middlings, oat shorts and oat hulls 29%, salt $\frac{3}{4}$ %	
2 Leslie Bailey Corinth.	Ground corn, hominy feed, yellow hominy feed, barley meal, molasses, cotton seed meal, old process linseed oil meal, low grade wheat flour, wheat middlings, with screenings, oats middlings, oat shorts and oat hulls 29%, salt $\frac{3}{4}$ %	Below guaranty in protein.
2 Gentry McCauley Versailles.	Same	
2 J. H. Fedders & Sons ... Covington.	Same	
2 C. L. Jewell Horse Cave.	Cotton seed meal, clipped oat by-products 20%, ground and bolted wheat and corn screenings 30%, alfalfa meal, cane molasses, salt 1%	
3 Mfrs. Warehouse Same.	Cotton seed meal, alfalfa meal, palmo middlings, rice bran, peanut meal, oat middlings and oat hulls 20%, molasses, alfalfa meal, whole oats corn, oat middlings and oat hulls 20%, molasses, salt 1%	No rice bran or peanut oil meal present. Corn meal and wheat bran present but not guaranteed.
21 H. P. Hawkins' Sons ... Paducah.	Corn, alfalfa meal, clipped oat by-products 20%, rice bran, cotton seed meal, molasses, salt 1%	Considerable unground wheat screenings present. Kaffir corn and milo maize present.
23 Bush Coal Co. Winchester.	Cotton seed meal, alfalfa meal, corn meal, shorts, middlings, flax plant by-products 15%, clipped oat by-products 15%, molasses, salt $\frac{1}{2}$ %	Ground weed seeds present. Clipped oat by-product and flax plant by-product both present in excess of 15%.
23 W. W. Stephens Stearns.	Same	Ground weed seeds present. Clipped oat by-product and flax plant by-product both present in excess of 15%.
20 C. Shimmessel Clay City.	Cotton seed meal, alfalfa meal, cotton seed hulls 20%, flax plant by-product 5%, clipped oat by-product 10%, brewers' grains, molasses, salt $\frac{1}{2}$ %	Below guaranty in protein. Clipped oat by-products in excess of 10%. Flax plant by-product in excess of 5%
22 Leach & Rowe Rowletts.	Cotton seed meal, alfalfa meal, corn meal, shorts, middlings, flax plant by-product 20%, clipped oat by-product 15%, molasses, salt $\frac{1}{2}$ %	No wheat product present.
23 Glass Milling Co. Wilmore.	Same	Fiber guarantee too high. Ground weed seeds, clipped oat by-product in excess of 15%

TABLE X.—MISCELLANEOUS MIXED FEEDS CONTAINING

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
2731-21	Economy Dairy Feed.....	Southern Seed Co. Louisville, Ky.	15.06 16.00	3.63 3.00
3548-21	Ideal Horse and Mule Feed	Same	8.75 8.00	3.02 2.00
3548-23	Same	Same	8.50 8.00	2.79 2.00
2013-21	Sugarine Dairy Feed.....	The Sugarine Co. Owensboro, Ky.	19.25 16.50	3.91 3.50
2013-21	Same	Same	19.13 16.50	4.35 3.50
2013-22	Same	Same	16.88 16.50	4.68 3.50
4626-22	Gordon Dairy Ration.....	Same	18.50 16.50	4.41 3.50
2599-22	Ideal Horse and Mule Feed	Same	7.75 10.00	2.87 2.50
2599-23	Same	Same	7.63 10.00	2.80 2.50
2235-21	Ideal Sugared Feed.....	Same	15.75 14.00	3.81 3.00
2235-22	Same	Same	16.25 14.00	4.53 3.00
1421-22	Velvet Molasses Feed.....	Sutherland Flour Mills Co. Cairo, Ill.	8.50 9.00	2.81 2.00
1421-22	Same	Same	8.50 9.00	2.09 2.00

MATERIAL OF LITTLE OR NO FEEDING VALUE.

1.	SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
11	Farmers Milling Co. Somerset.	Brewers' dried grains, cotton seed meal, alfalfa meal, cotton seed hulls 10%, flax plant by-product 10%, clipped oat by-products 5%, molasses, salt $\frac{1}{2}$ %	Below guaranty in protein.
21	The Riverside Co. Beattyville.	Corn, oats, alfalfa meal, oat middlings and oat hulls, 25%, flax plant by-product 5%, salt $\frac{1}{2}$ %, molasses	
23	Powell-Hackney Grocery Co., Jackson.	Same	No alfalfa meal present.
21	Sandusky Bros. Harrodsburg.	Wheat bran, prime cotton seed meal, cocoanut meal, ground and bolted grain screenings 28%, clipped oat by-products 20%, corn feed meal, molasses, calcium carbonate $\frac{1}{2}$ %, salt $\frac{1}{2}$ %	
21	Hardinsburg Mill & Elevator Co., Hardinsburg.	Same	
22	Lake Bros. Springfield.	Same	Weed seeds present.
22	F. H. Gordon Richmond.	Wheat bran, cotton seed meal, peanut meal, copra meal, corn meal, ground and bolted grain screenings 25%, clipped oat by-product 20%, molasses, calcium carbonate $\frac{1}{2}$ %, salt $\frac{1}{2}$ %.	No copra meal found. Corn gluten feed and corn meal present.
22	Conner-Hayden & Co. ... Bardstown.	Barley, molasses, oat shorts, oat middlings and oat hulls, 15%, alfalfa meal, salt $\frac{1}{2}$ %	Not in accordance with guaranty. Consists of oat hulls and middlings and cracked corn with alfalfa and molasses. No barley present. Below guaranty in protein. Very inferior product.
23	R. J. Smith Co. Somerset.	Corn, molasses, oat shorts, oat middlings and oat hulls 15%, salt $\frac{1}{2}$ %	Wild oats present. Much below guaranty in protein and inferior to claim.
21	Drakesboro Mill & Feed Co., Drakesboro.	Molasses, ground and bolted grain screenings 20%, clipped oat by-product 25%, wheat bran, cotton seed meal, cocoanut meal, calcium carbonate 1%, salt 1%	Corn product, peanut oil meal and weed seeds present.
22	R. J. Smith Co. Somerset.	Same	Above guaranty in fiber. The screenings contain weed seeds.
22	Covington Bros. & Co. .. Mayfield.	Cracked corn, alfalfa meal, ground grain screenings 10%, oat middlings, oat shorts and oat hulls 10%, molasses, salt $\frac{1}{2}$ %, oats..	Below guaranty in protein.
22	J. W. Moss Bardwell.	Same	Oat product in excess of 10%. Below guaranty in protein and above in fiber.

TABLE X.—MISCELLANEOUS MIXED FEEDS CONTAINING

Reg. No.	NAME OF FEED	MANUFACTURER	Analysis	
			Prot.	Fat
1985-20	Fourex Dairy Ration.....	The Ubiko Milling Co. Cincinnati, Ohio.	21.06 20.00	4.83 4.00
3711-21	O-Kay Dairy Feed.....	Winchester Roller Mills Winchester, Ky.	18.00 16.50	5.03 3.50
3711-22	Same	Same	16.75 16.50	4.18 3.50
4598-22	Alpine Dairy Feed.....	Woolcott Flour Mills Lexington, Ky.	18.00 16.50	3.82 3.50
4598-22	Same	Same	16.75 16.50	4.88 3.50

MATERIAL OF LITTLE OR NO FEEDING VALUE.

SAMPLE TAKEN FROM	INGREDIENTS GUARANTEED	REMARKS—VARIANCE FROM GUARANTY
Danville Ice & Coal Co... Danville.	Cotton seed meal, old process lin- seed meal, hominy feed, wheat bran, wheat middlings, gluten feed, oat middlings and oat hulls 10%, rye middlings, malt sprouts, salt.....	Oat product in excess of 10%. Unground wheat screenings present.
S. Adams & Sons Torrent.	Wheat bran, prime cotton seed meal, cocoanut meal, ground and bolted grain screenings 25%, clipped oat by-products 20%, corn feed meal, molasses, calcium carbonate $\frac{1}{2}\%$, salt $\frac{1}{2}\%$	Not the feed guaranteed. Made up entirely of different ingredients.
B. Tipton Ravenna.	Same	Not the feed guaranteed. Made up entirely of different ingredients.
R. P. Coffman Walton.	Wheat bran, cotton seed meal, peanut meal, copra meal, corn meal, ground and bolted grain screenings 25%, clipped oat by- product 20%, molasses, calcium carbonate $\frac{1}{2}\%$, salt $\frac{1}{2}\%$	Not the feed guaranteed. Made up entirely of different ingredients.
J. S. Oaks Stanton.	Same	



